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<210> 5832

<211> 322

<212> PRT

<213> Homo sapiens

<400> 5832

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Ala	Val	His	His	Ile	Ile	His	Asp	Phe	Gln	Pro	His	Val	Ile	Val	His
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Cys	Ala	Ala	Glu	Arg	Arg	Pro	Asp	Val	Val	Glu	Asn	Gln	Pro	Asp	Ala
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Ala	Ser	Gln	Leu	Asn	Val	Asp	Ala	Ser	Gly	Asn	Leu	Ala	Lys	Glu	Ala
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Asp	Gly	Thr	Asn	Pro	Pro	Tyr	Arg	Glu	Glu	Asp	Ile	Pro	Ala	Pro	Leu
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Asn	Leu	Tyr	Gly	Lys	Thr	Lys	Leu	Asp	Gly	Glu	Lys	Ala	Val	Leu	Glu
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			165					170					175		
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Glu	Thr	Leu	Gly	Ile	Gly	Gln	Arg	Thr	Pro	Phe	Arg	Ile	Gly	Ile	Lys
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Phe	His														

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 <211> 805
 <212> DNA
 <213> Homo sapiens

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 35 40 45
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 50 55 60
 Ala Arg Arg Gly Lys Lys Ile Phe Val Leu Gly Pro Lys Tyr Ser Pro
 65 70 75 80
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Tyr	Leu	Leu	Met	Gly	Arg	Glu	Leu	Glu	Tyr	Leu	Glu	Glu	Val	Pro	Pro
	115							120					125		
Gly	Asn	Val	Leu	Gly	Ile	Gly	Gly	Leu	Gln	Asp	Phe	Val	Leu	Lys	Ser
	130					135					140				
Ala	Thr	Leu	Cys	Ser	Leu	Pro	Ser	Cys	Pro	Pro	Phe	Ile	Pro	Leu	Asn
145					150					155					160
Phe	Glu	Ala	Thr	Pro	Ile	Val	Arg	Val	Ala	Val	Glu	Pro	Lys	His	Pro
				165					170					175	
Ser	Glu	Met	Pro	Gln	Leu	Val	Lys	Gly	Met	Lys	Leu	Leu	Asn	Gln	Ala
	180							185					190		
Asp	Pro	Cys	Val	Gln	Ile	Leu	Ile	Gln	Glu	Thr	Gly	Glu	His	Val	Leu
	195							200					205		
Val	Thr	Ala	Gly	Glu	Val	His	Leu	Gln	Arg	Cys	Leu	Asp	Asp	Leu	Lys
	210					215					220				
Glu	Arg	Phe	Ala	Lys	Ile	His	Ile	Ser	Val	Ser	Glu	Pro	Ile	Ile	Pro
225					230					235					240
Phe	Arg	Glu	Thr	Ile	Thr	Lys	Pro	Pro	Lys	Val	Asp	Met	Val	Asn	Glu
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<210> 5835

<211> 420

<212> DNA

<213> Homo sapiens

<400> 5835

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180

ttctttgatg tggtggggaa tgacaggagg agagaatggg cagccctggg aaacatgtct

240

aaagaggatg ccatggtgga gtttgtcaag ctcttaaata ggtgttgcca tctcttttca

300

acatatgttg cgtcccacaa aatagagaag gaagagcaag acaaaaaaag gaaggaggaa

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<210> 5836

<211> 140

<212> PRT

<213> Homo sapiens

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1

5

10

15

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                20          25          30
Tyr Glu Glu Lys Leu Lys Leu Val Ala Leu His Lys Gln Val Leu Met
                35          40          45
Gly Pro Tyr Asn Pro Asp Thr Cys Pro Glu Val Gly Phe Phe Asp Val
                50          55          60
Leu Gly Asn Asp Arg Arg Arg Glu Trp Ala Ala Leu Gly Asn Met Ser
65                70          75          80
Lys Glu Asp Ala Met Val Glu Phe Val Lys Leu Leu Asn Arg Cys Cys
                85          90          95
His Leu Phe Ser Thr Tyr Val Ala Ser His Lys Ile Glu Lys Glu Glu
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Gln Asp Lys Lys Arg Lys Glu Glu Glu Glu Arg Arg Arg Arg Glu Glu
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<210> 5837
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 <212> DNA
 <213> Homo sapiens

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<210> 5838
 <211> 88
 <212> PRT
 <213> Homo sapiens

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<400> 5838
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Phe Ser Met Leu Cys Cys Phe Trp Pro Val Gly Ile Ala Ala Phe Cys
20          25          30
Leu Ala Gln Lys Thr Asn Lys Ala Trp Ala Lys Gly Asp Ile Gln Gly

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	35		40		45	
Ala	Gly	Ala	Ala	Ser	Arg	Arg
	50		55		60	
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<210> 5839

<211> 1895

<212> DNA

<213> Homo sapiens

<400> 5839

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cattcgaatg catcccaacc agtgctcagc tgcgtaacga catggagaga ggcagggggg
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1200

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<210> 5840

<211> 138

<212> PRT

<213> Homo sapiens

<400> 5840

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			20					25					30		
Leu	Met	Val	His	Gly	Trp	Cys	Pro	Val	Ile	Phe	Ser	Trp	Ala	Val	Ala
		35					40					45			
Pro	Arg	Gly	Ser	Gly	Phe	Pro	Ala	Gln	Gly	Ile	Phe	Asp	Pro	Cys	Gln
	50					55					60				
Arg	Arg	Glu	Arg	Glu	Leu	Ser	Trp	Phe	Pro	Phe	His	Leu	Phe	Ser	Gly
65				70					75					80	
Cys	Phe	Lys	Ala	Asn	Ile	Pro	Val	Pro	Asn	Val	Leu	Cys	Gly	Leu	Asn
			85					90					95		
Pro	Gly	Arg	Gly	Gln	Gly	His	Ile	Gln	Val	Gly	Leu	Ala	Ser	Ser	Thr
			100					105					110		
Thr	Phe	Trp	Pro	Gln	Gln	Arg	Met	Gly	Phe	His	Gln	Ser	Leu	Ser	Thr
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<210> 5841

<211> 3411

<212> DNA

<213> Homo sapiens

<400> 5841

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<211> 460

<212> PRT

<213> Homo sapiens

<400> 5842

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			20					25					30		
Thr	Leu	Trp	Gly	His	Glu	Asn	Pro	Phe	Ser	Asp	Leu	Pro	Ser	Gly	Thr
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Leu	Asn	Phe	His	Pro	Val	Trp	Thr	Ser	Arg	Thr	Cys	Ser	Arg	Pro	Pro
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Phe	Cys	Leu	Ser	Gln	Ile	Val	Gln	Leu	Lys	Ala	Ile	Asn	Val	Asp	Leu
65				70					75					80	
Gln	Ser	Asp	Ala	Ala	Leu	Gln	Val	Asp	Ile	Ser	Asp	Ala	Leu	Ser	Glu
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Arg	Asp	Lys	Val	Lys	Phe	Thr	Val	His	Thr	Lys	Ser	Ser	Leu	Pro	Asn
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Phe	Lys	Gln	Asn	Glu	Phe	Ser	Val	Val	Arg	Gln	His	Glu	Glu	Phe	Ile
			115				120					125			
Trp	Leu	His	Asp	Ser	Phe	Val	Glu	Asn	Glu	Asp	Tyr	Ala	Gly	Tyr	Ile
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Ile	Pro	Pro	Ala	Pro	Pro	Arg	Pro	Asp	Phe	Asp	Ala	Ser	Arg	Glu	Lys
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<212> PRT

<213> Homo sapiens

<400> 5844

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 <213> Homo sapiens

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<210> 5848
 <211> 120
 <212> PRT

<213> Homo sapiens

<400> 5848

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Asn Met Ala Asn Leu Phe Ile Arg Lys Met Val Asn Pro Leu Leu Tyr
      20           25           30
Leu Ser Arg His Thr Val Lys Pro Arg Ala Leu Ser Thr Phe Leu Phe
      35           40           45
Gly Ser Ile Arg Gly Ala Ala Pro Val Ala Val Glu Pro Gly Ala Ala
      50           55           60
Val Arg Ser Leu Leu Ser Pro Gly Leu Leu Pro His Leu Leu Pro Ala
      65           70           75           80
Leu Gly Phe Lys Asn Lys Thr Val Leu Lys Lys Arg Cys Lys Asp Cys
      85           90           95
Tyr Leu Val Lys Arg Arg Gly Arg Trp Tyr Val Tyr Cys Lys Thr His
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Pro Arg His Lys Gln Arg Gln Met
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<210> 5849

<211> 3174

<212> DNA

<213> Homo sapiens

<400> 5849

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aaaaatctca agaccacagg acagcgtgag ccccccaccc ctcccccaat gacccagca
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600
gggggaaaag ggagaggcca cagggcaaag agtgtattag ggctgagct gcagctgcct
660
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720
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840

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gccaaaawyy mmttggtttt ttaaaaaata atcacaattt gtgggttaaa aaccaatttg
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<210> 5850

<211> 154

<212> PRT

<213> Homo sapiens

<400> 5850

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		20						25					30		
Cys	Thr	Gln	Thr	Gly	His	Ala	Gln	Pro	Cys	Pro	Ser	Ala	Pro	Ser	Thr
		35					40					45			
Gly	Pro	Ile	His	Ile	Ala	Glu	Gly	Gly	Arg	Gly	Arg	Pro	Pro	Pro	Gly
	50					55				60					
Ser	Ala	Ser	Asn	Pro	Gln	Pro	Pro	Gly	Ser	Pro	His	Cys	Pro	Ser	Ala
	65				70				75					80	
Gly	Leu	Ser	Pro	Val	Pro	Gly	Val	Gly	Gly	Arg	Gln	Cys	Pro	Gly	Thr
			85					90						95	
Val	Pro	Arg	Val	Arg	Arg	Pro	Gly	Leu	Ala	Gly	His	Pro	Val	Thr	His
		100					105						110		
Arg	Ile	Asn	Arg	Lys	Thr	Ala	Ser	Pro	Pro	Asn	Leu	Cys	Pro	Arg	His
		115					120					125			
Asn	Met	Ser	Arg	Ser	Glu	Ser	Cys	Thr	Pro	Arg	Ser	Arg	Ala	Pro	Leu
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Gln	Arg	Thr	Leu	Thr	Pro	Pro	Arg	Gly	Ala						
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<210> 5851

<211> 488

<212> DNA

<213> Homo sapiens

<400> 5851

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120
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180
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240
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300
gacttcata gagttgaggt gggctgccga agtccctttg gtcaatgtga caggagaagc
360
tgctgccatg gttacatcct cagacgtttt attatcaact gtttccacag atgcattcct
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488

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<210> 5852

<211> 82

<212> PRT

<213> Homo sapiens

<400> 5852

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Asn Lys Thr Ser Glu Asp Val Thr Met Ala Ala Ala Ser Pro Val Thr
20           25           30
Leu Thr Lys Gly Thr Ser Ala Ala His Leu Asn Ser Met Glu Val Thr
35           40           45
Thr Glu Asp Thr Ser Arg Thr Asp Ala Tyr Glu Ser Tyr Lys Lys Lys
50           55           60
Asp Tyr Thr Gln Val Asp Tyr Leu Ile Asn Gly Met Tyr Ala Asp Ser
65           70           75           80
Glu Met

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<210> 5853

<211> 487

<212> DNA

<213> Homo sapiens

<400> 5853

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120
tcaggccccag cagctccatg gaggacgccg gcgaggaccc caccacgttt gctgccact
180

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ctctgcccag tgacccccgt ctcttgccca ctgtgaccaa cgcatacctg ggcacacgag
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487

<210> 5854
<211> 68
<212> PRT
<213> Homo sapiens

<400> 5854
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Tyr Arg Arg Ser Gln Glu Gly Gly Pro Ala Arg Pro Ala Ala Pro Asp
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Thr Pro Ser Gly Arg Ser Gly Pro Ala Ala Pro Trp Arg Thr Pro Ala
35 40 45
Arg Thr Pro Pro Arg Leu Leu Pro Thr Leu Cys Pro Val Thr Pro Val
50 55 60
Ser Trp Pro Leu
65

<210> 5855
<211> 362
<212> DNA
<213> Homo sapiens

<400> 5855
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tcctcccgac cctcccgag gcaactgctg ggggctgtgg ggcccaaagc gggagggagt
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360
an
362

<210> 5856
<211> 113
<212> PRT

<213> Homo sapiens

<400> 5856

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Met Glu Pro Ala Arg Val Gly Ile Ala Ser Glu Gly Gly Arg Asp Ser
 1           5           10           15
Val Thr Ala Pro Leu Cys Ser Ala Asp Pro Leu Leu Ala Val Pro Pro
      20           25           30
Ser Pro Pro Asp Pro Pro Ala Gly Thr Cys Trp Gly Leu Trp Gly Pro
      35           40           45
Lys Arg Glu Gly Val Asn Glu Val Val Ala Glu Val Leu Leu Ala Ala
      50           55           60
His Glu Gly Val Gly Asp Gln Gly Glu Ala Gly Ala His Pro Val Leu
      65           70           75           80
Ser Asp Ala Gly Leu Leu Val Leu Gly Leu Arg Ala Ala Leu Gly Glu
      85           90           95
His Gln Ala His Leu Gly Ser Ala Leu Asn Glu His Gln Arg Val Leu
      100           105           110
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<210> 5857

<211> 1751

<212> DNA

<213> Homo sapiens

<400> 5857

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840

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<210> 5858
 <211> 434
 <212> PRT
 <213> Homo sapiens

<400> 5858
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 Gly Gly Gln Gly Arg Gly Gly Glu Lys Pro Pro His Leu Ala Ala Leu
 35 40 45
 Ile Leu Ala Arg Gly Gly Ser Lys Gly Ile Pro Leu Lys Asn Ile Lys
 50 55 60
 His Leu Ala Gly Val Pro Leu Ile Gly Trp Val Leu Arg Ala Ala Leu
 65 70 75 80
 Asp Ser Gly Ala Phe Gln Ser Val Trp Val Ser Thr Asp His Asp Glu
 85 90 95
 Ile Glu Asn Val Ala Lys Gln Phe Gly Ala Gln Val His Arg Arg Ser
 100 105 110
 Ser Glu Val Ser Lys Asp Ser Ser Thr Ser Leu Asp Ala Ile Ile Glu

115	120	125
Phe Leu Asn Tyr His Asn Glu Val Asp Ile Val Gly Asn Ile Gln Ala		
130	135	140
Thr Ser Pro Cys Leu His Pro Thr Asp Leu Gln Lys Val Ala Glu Met		
145	150	155
Ile Arg Glu Glu Gly Tyr Asp Ser Val Phe Ser Val Val Arg Arg His		
165	170	175
Gln Phe Arg Trp Ser Glu Ile Gln Lys Gly Val Arg Glu Val Thr Glu		
180	185	190
Pro Leu Asn Leu Asn Pro Ala Lys Arg Pro Arg Arg Gln Asp Trp Asp		
195	200	205
Gly Glu Leu Tyr Glu Asn Gly Ser Phe Tyr Phe Ala Lys Arg His Leu		
210	215	220
Ile Glu Met Gly Tyr Leu Gln Gly Gly Lys Met Ala Tyr Tyr Glu Met		
225	230	235
Arg Ala Glu His Ser Val Asp Ile Asp Val Asp Ile Asp Trp Pro Ile		
245	250	255
Ala Glu Gln Arg Val Leu Arg Tyr Gly Tyr Phe Gly Lys Glu Lys Leu		
260	265	270
Lys Glu Ile Lys Leu Leu Val Cys Asn Ile Asp Gly Cys Leu Thr Asn		
275	280	285
Gly His Ile Tyr Val Ser Gly Asp Gln Lys Glu Ile Ile Ser Tyr Asp		
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Val Lys Asp Ala Ile Gly Ile Ser Leu Leu Lys Lys Ser Gly Ile Glu		
305	310	315
Val Arg Leu Ile Ser Glu Arg Ala Cys Ser Lys Gln Thr Leu Ser Ser		
325	330	335
Leu Lys Leu Asp Cys Lys Met Glu Val Ser Val Ser Asp Lys Leu Ala		
340	345	350
Val Val Asp Glu Trp Arg Lys Glu Met Gly Leu Cys Trp Lys Glu Val		
355	360	365
Ala Tyr Leu Gly Asn Glu Val Ser Asp Glu Glu Cys Leu Lys Arg Val		
370	375	380
Gly Leu Ser Gly Ala Pro Ala Asp Ala Cys Ser Thr Ala Gln Lys Ala		
385	390	395
Val Gly Tyr Ile Cys Lys Cys Asn Gly Gly Arg Gly Ala Ile Arg Glu		
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Gln Lys		

<210> 5859

<211> 2267

<212> DNA

<213> Homo sapiens

<400> 5859

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240
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 2040
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 2160
 aaagcataca gaaaaaaaaagg tagttaacgt tggatcatgt gtaaaacgga acctcagggg
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 2267

<210> 5860
 <211> 96
 <212> PRT
 <213> Homo sapiens

<400> 5860
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 35 40 45
 Gln Met Gly Leu Gly Arg Cys Arg Phe Cys Phe Ser Pro Trp Leu Pro
 50 55 60
 Val Arg Pro Gln Pro Ser Gly Cys Asp Ile Ile Glu Ser Ala Val Ser
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<210> 5861
 <211> 1951
 <212> DNA
 <213> Homo sapiens

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 180
 aagctatttg agaaagtcaa agaagtttgt ccaaattgtgc atgagaagat cagagctatt
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480
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1951

<210> 5862
 <211> 514
 <212> PRT
 <213> Homo sapiens

<400> 5862

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      20           25           30
Pro Asp Leu Lys Val Ile Tyr Ile Leu Val Arg Pro Lys Ala Gly Gln
      35           40           45
Thr Leu Gln Gln Arg Val Phe Gln Ile Leu Asp Ser Lys Leu Phe Glu
      50           55           60
Lys Val Lys Glu Val Cys Pro Asn Val His Glu Lys Ile Arg Ala Ile
65           70           75           80
Tyr Ala Asp Leu Asn Gln Asn Asp Phe Ala Ile Ser Lys Glu Asp Met
      85           90           95
Gln Glu Leu Leu Ser Cys Thr Asn Ile Ile Phe His Cys Ala Ala Thr
      100          105          110
Val Arg Phe Asp Asp Thr Leu Arg His Ala Val Gln Leu Asn Val Thr
      115          120          125
Ala Thr Arg Gln Leu Leu Leu Met Ala Ser Gln Met Pro Lys Leu Glu
      130          135          140
Ala Phe Ile His Ile Ser Thr Ala Tyr Ser Asn Cys Asn Leu Lys His
145          150          155          160
Ile Asp Glu Val Ile Tyr Pro Cys Pro Val Glu Pro Lys Lys Lys Ile
      165          170          175
Ile Asp Ser Leu Glu Trp Leu Asp Asp Ala Ile Ile Asp Glu Ile Thr
      180          185          190
Pro Lys Leu Ile Arg Asp Trp Pro Asn Ile Tyr Thr Tyr Thr Lys Ala
      195          200          205
Leu Gly Glu Met Val Val Gln Gln Glu Ser Arg Asn Leu Asn Ile Ala
      210          215          220
Ile Ile Arg Pro Ser Ile Val Gly Ala Thr Trp Gln Glu Pro Phe Pro
225          230          235          240
Gly Trp Val Asp Asn Ile Asn Gly Pro Asn Gly Ile Ile Ile Ala Thr
      245          250          255
Gly Lys Gly Phe Leu Arg Ala Ile Lys Ala Thr Pro Met Ala Val Ala
      260          265          270
Asp Val Ile Pro Val Asp Thr Val Val Asn Leu Met Leu Ala Val Gly
      275          280          285
Trp Tyr Thr Ala Val His Arg Pro Lys Ser Thr Leu Val Tyr His Ile
      290          295          300
Thr Ser Gly Asn Met Asn Pro Cys Asn Trp His Lys Met Gly Val Gln
305          310          315          320
Val Leu Ala Thr Phe Glu Lys Ile Pro Phe Glu Arg Pro Phe Arg Arg
      325          330          335
Pro Asn Ala Asn Phe Thr Ser Asn Ser Phe Thr Ser Gln Tyr Trp Asn
      340          345          350
Ala Val Ser His Arg Ala Pro Ala Ile Ile Tyr Asp Cys Tyr Leu Arg
      355          360          365
Leu Thr Gly Arg Lys Pro Arg Met Thr Lys Leu Met Asn Arg Leu Leu

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      370          375          380
Arg Thr Val Ser Met Leu Glu Tyr Phe Ile Asn Arg Ser Trp Glu Trp
385          390          395          400
Ser Thr Tyr Asn Thr Glu Met Leu Met Ser Glu Leu Ser Pro Glu Asp
      405          410          415
Gln Arg Val Phe Asn Phe Asp Val Arg Gln Leu Asn Trp Leu Glu Tyr
      420          425          430
Ile Glu Asn Tyr Val Leu Gly Val Lys Lys Tyr Leu Leu Lys Glu Asp
      435          440          445
Met Ala Gly Ile Pro Lys Ala Lys Gln Arg Leu Lys Arg Leu Arg Asn
      450          455          460
Ile His Tyr Leu Phe Asn Thr Ala Leu Phe Leu Ile Ala Trp Arg Leu
465          470          475          480
Leu Ile Ala Arg Ser Gln Met Ala Arg Asn Val Trp Phe Phe Ile Val
      485          490          495
Ser Phe Cys Tyr Lys Phe Leu Ser Tyr Phe Arg Ala Ser Ser Thr Leu
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Lys Val

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<210> 5863
 <211> 438
 <212> DNA
 <213> Homo sapiens

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120
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180
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240
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300
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438

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<210> 5864
 <211> 104
 <212> PRT
 <213> Homo sapiens

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<400> 5864
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Asp Cys Ser Leu Pro Val Gly Gln Thr His Ser Asn Thr Lys Leu Phe
20          25          30
Cys Gln Tyr Leu Ser Tyr Val Pro Phe Met Ala Glu Tyr Gln Ser Lys

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<210> 5865
<211> 1229
<212> DNA
<213> Homo sapiens
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 1229

<210> 5866
 <211> 212
 <212> PRT
 <213> Homo sapiens

<400> 5866
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 Ala Val Leu Asn Phe Asp Leu Pro Pro Thr Pro Glu Ala Tyr Ile His
 20 25 30
 Arg Ala Gly Arg Thr Ala Arg Ala Asn Asn Pro Gly Ile Val Leu Thr
 35 40 45
 Phe Val Leu Pro Thr Glu Gln Phe His Leu Gly Lys Ile Glu Glu Leu
 50 55 60
 Leu Val Glu Arg Thr Gly Ala Pro Phe Cys Ser Pro Thr Ser Ser Gly
 65 70 75 80
 Trp Arg Arg Ser Arg Ala Ser Ala Ile Ala Ala Gly Val His Pro Gln
 85 90 95
 Asp Ala Met Arg Ser Val Thr Lys Gln Ala Ile Arg Glu Ala Arg Leu
 100 105 110
 Lys Glu Ile Lys Glu Glu Leu Leu His Ser Glu Lys Leu Lys Thr Tyr
 115 120 125
 Phe Glu Asp Asn Pro Arg Asp Leu Gln Leu Leu Arg His Asp Leu Pro
 130 135 140
 Leu His Pro Ala Val Val Lys Pro His Leu Gly His Val Pro Asp Tyr
 145 150 155 160
 Leu Val Pro Pro Ala Leu Arg Gly Leu Val Arg Pro His Lys Lys Arg
 165 170 175
 Lys Lys Leu Ser Ser Ser Cys Arg Lys Ala Lys Arg Ala Lys Ser Gln
 180 185 190
 Asn Pro Leu Arg Ser Phe Lys His Lys Gly Lys Lys Phe Arg Pro Thr
 195 200 205
 Ala Lys Pro Ser
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<210> 5867
 <211> 1882
 <212> DNA
 <213> Homo sapiens

<400> 5867
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 gcgtccatt gccttactg cccgtccag gaagctctgg atcaacttca agacaagcga
 180
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 240

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300
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420
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480
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ccctttctgt ctttctagtt tctttcctt gtctctctct gcttgcctct ctactgttcc
660
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780
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1740
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1882

<210> 5868
<211> 131
<212> PRT
<213> Homo sapiens

<400> 5868
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Gln Thr Tyr Glu Arg Pro Ile Ala Phe Thr Ala Arg Ser Arg Lys Leu
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Trp Ile Asn Phe Lys Thr Ser Glu Ala Asn Ser Ala Arg Gly Phe Gln
35 40 45
Ile Pro Tyr Val Thr Tyr Asp Glu Asp Tyr Glu Gln Leu Val Glu Asp
50 55 60
Ile Val Arg Asp Gly Arg Leu Tyr Ala Ser Glu Asn His Gln Glu Ile
65 70 75 80
Leu Lys Asp Lys Lys Leu Ile Lys Ala Phe Phe Glu Val Leu Ala His
85 90 95
Pro Gln Asn Tyr Phe Lys Tyr Thr Glu Lys His Lys Glu Met Leu Pro
100 105 110
Lys Ser Phe Ile Lys Leu Leu Arg Ser Lys Val Ser Ser Phe Leu Arg
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Pro Tyr Lys
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<210> 5869
<211> 910
<212> DNA
<213> Homo sapiens

<400> 5869
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300
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<210> 5870

<211> 129

<212> PRT

<213> Homo sapiens

<400> 5870

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			20					25					30		
Gly	Ser	Leu	Leu	Ile	Met	His	His	Glu	Ala	Ser	Thr	His	Arg	Val	Ile
		35					40					45			
Pro	Thr	Leu	Val	Gln	Thr	Gly	Leu	His	Gly	Arg	His	Ile	Leu	Gly	Arg
		50				55					60				
His	Val	Phe	Gly	Ser	Ala	Ala	Asn	Leu	Phe	Ser	Cys	Ala	Ile	Asp	Gln
65				70						75				80	
Val	Phe	Pro	Asn	Glu	Gly	Cys	Leu	Pro	Tyr	Ser	Cys	Gln	Glu	Pro	Asn
			85						90					95	
Ser	Ser	Leu	Gln	Tyr	Gln	Ile	Gln	Ser	Val	Val	Arg	Met	Lys	Cys	Gly
			100					105					110		
Gly	Leu	Val	Thr	Glu	Glu	Ala	Val	Glu	Arg	Arg	Arg	Ala	Trp	Val	Ala
		115					120						125		

Pro

<210> 5871

<211> 2217

<212> DNA

<213> Homo sapiens

<400> 5871

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 180
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360
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1920

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2217

<210> 5872

<211> 578

<212> PRT

<213> Homo sapiens

<400> 5872

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Glu	Ala	Ser	Pro	Val	Val	Val	Glu	Lys	Ser	Asn	Ser	Tyr	Pro	His	Gln
			20					25					30		
Leu	Tyr	Thr	Ser	Ser	Ser	His	His	Ser	His	Ser	Tyr	Ile	Gly	Leu	Pro
	35					40						45			
Tyr	Ala	Asp	His	Asn	Tyr	Gly	Ala	Arg	Pro	Pro	Pro	Thr	Pro	Pro	Ala
	50					55					60				
Ser	Pro	Pro	Pro	Ser	Val	Leu	Ile	Ser	Lys	Asn	Glu	Val	Gly	Ile	Phe
65					70				75					80	
Thr	Thr	Pro	Asn	Phe	Asp	Glu	Thr	Ser	Ser	Ala	Thr	Thr	Ile	Ser	Thr
			85					90						95	
Ser	Glu	Asp	Gly	Ser	Tyr	Gly	Thr	Asp	Val	Thr	Arg	Cys	Ile	Cys	Gly
		100					105					110			
Phe	Thr	His	Asp	Asp	Gly	Tyr	Met	Ile	Cys	Cys	Asp	Lys	Cys	Ser	Val
	115					120						125			
Trp	Gln	His	Ile	Asp	Cys	Met	Gly	Ile	Asp	Arg	Gln	His	Ile	Pro	Asp
	130					135				140					
Thr	Tyr	Leu	Cys	Glu	Arg	Cys	Gln	Pro	Arg	Asn	Leu	Asp	Lys	Glu	Arg
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Leu	Leu	Phe	Gly	Arg	Leu	Asn	Gly	Leu	Ser	Ser	Asp	Ser	Thr	Ile	Asp
	210					215					220				
Ile	Leu	Tyr	Gln	Leu	Gly	Thr	Thr	Gln	Asp	Pro	Gly	Thr	Lys	Asp	Arg
225					230				235						240
Ile	Gln	Ala	Leu	Leu	Lys	Trp	Val	Ser	Asp	Ser	Ala	Arg	Val	Ala	Ala
			245						250					255	
Met	Lys	Arg	Ser	Gly	Arg	Met	Asn	Tyr	Met	Cys	Pro	Asn	Ser	Ser	Thr
		260					265					270			
Val	Glu	Tyr	Gly	Leu	Leu	Met	Pro	Ser	Pro	Ser	His	Leu	His	Cys	Val
	275					280					285				
Ala	Ala	Ile	Leu	Trp	His	Ser	Tyr	Glu	Leu	Leu	Val	Glu	Tyr	Asp	Leu
	290					295					300				
Pro	Ala	Leu	Leu	Asp	Gln	Glu	Leu	Phe	Glu	Leu	Leu	Phe	Asn	Trp	Ser
305					310				315						320
Met	Ser	Leu	Pro	Cys	Asn	Met	Val	Leu	Lys	Lys	Ala	Val	Asp	Ser	Leu
			325						330					335	
Leu	Cys	Ser	Met	Cys	His	Val	His	Pro	Asn	Tyr	Phe	Ser	Leu	Leu	Met
		340					345					350			
Gly	Trp	Met	Gly	Ile	Thr	Pro	Pro	Pro	Val	Gln	Cys	His	His	Arg	Leu
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Ser	Met	Thr	Asp	Asp	Ser	Lys	Lys	Gln	Asp	Leu	Ser	Ser	Ser	Leu	Thr
	370					375				380					
Asp	Asp	Ser	Lys	Asn	Ala	Gln	Ala	Pro	Leu	Ala	Leu	Thr	Glu	Ser	His
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Leu	Ala	Thr	Leu	Ala	Ser	Ser	Ser	Gln	Ser	Pro	Glu	Ala	Ile	Lys	Gln
			405						410				415		
Leu	Leu	Asp	Ser	Gly	Leu	Pro	Ser	Leu	Leu	Val	Arg	Ser	Leu	Ala	Ser
		420					425					430			
Phe	Cys	Phe	Ser	His	Ile	Ser	Ser	Ser	Glu	Ser	Ile	Ala	Gln	Ser	Ile
	435					440					445				
Asp	Ile	Ser	Gln	Asp	Lys	Leu	Arg	Arg	His	His	Val	Pro	Gln	Gln	Cys
	450					455					460				
Asn	Lys	Met	Pro	Ile	Thr	Ala	Asp	Leu	Val	Ala	Pro	Ile	Leu	Arg	Phe
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Leu	Thr	Glu	Val	Gly	Asn	Ser	His	Ile	Met	Lys	Asp	Trp	Leu	Gly	Gly
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Ser	Glu	Val	Asn	Pro	Leu	Trp	Thr	Ala	Leu	Leu	Phe	Leu	Leu	Cys	His

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Gln	Gln	Arg	Thr	Ala	Ile	Glu	Asn	Ala	Thr	Val	Ala	Phe	Phe	Leu	Gln
545				550				555				560			
Cys	Ile	Ser	Cys	His	Pro	Asn	Asn	Gln	Lys	Leu	Met	Ala	Gln	Val	Leu
565				570				575							
Cys	Glu	Leu	Phe	Gln	Thr	Ser	Pro	Gln	Arg	Gly	Asn	Leu	Pro	Thr	Ser
580				585				590							
Gly	Asn	Ile	Ser	Gly	Phe	Ile	Arg	Arg	Leu	Phe	Leu	Gln	Leu	Met	Leu
595				600				605							
Glu	Asp	Glu	Lys	Val	Thr	Met	Phe	Leu	Gln	Ser	Pro	Cys	Pro	Leu	Tyr
610				615				620							
Lys	Gly	Arg	Ile	Asn	Ala	Thr	Ser	His	Val	Ile	Gln	His	Pro	Met	Tyr
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Gly	Ala	Gly	His	Lys	Phe	Arg	Thr	Leu	His	Leu	Pro	Val	Ser	Thr	Thr
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690				695				700							
Val	Val	Val	Ala	Ser	Gly	Leu	Lys	Ser	Gln	Ser	Lys	Arg	Ala	Val	Ser
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Ala	Thr	Pro	Pro	Arg	Pro	Pro	Ser	Arg	Arg	Gly	Arg	Thr	Ile	Pro	Asp
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Lys	Ile	Gly	Ser	Thr	Ser	Gly	Ala	Glu	Ala	Ala	Asn	Lys	Ile	Ile	Thr
740				745				750							
Val	Pro	Val	Phe	His	Leu	Phe	His	Lys	Leu	Leu	Ala	Gly	Gln	Pro	Leu
755				760				765							
Pro	Ala	Glu	Met	Thr	Leu	Ala	Gln	Leu	Leu	Thr	Leu	Leu	Tyr	Asp	Arg
770				775				780							
Lys	Leu	Pro	Gln	Gly	Tyr	Arg	Ser	Ile	Asp	Leu	Thr	Val	Lys	Leu	Gly
785				790				795				800			
Ser	Arg	Val	Ile	Thr	Asp	Pro	Ser	Leu	Ser	Lys	Thr	Asp	Ser	Tyr	Lys
805				810				815							
Arg	Leu	His	Pro	Glu	Lys	Asp	His	Gly	Asp	Leu	Leu	Ala	Ser	Cys	Pro
820				825				830							
Glu	Asp	Glu	Ala	Leu	Thr	Pro	Gly	Asp	Glu	Cys	Met	Asp	Gly	Ile	Leu
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Asp	Glu	Ser	Leu	Leu	Glu	Thr	Cys	Pro	Ile	Gln	Ser	Pro	Leu	Gln	Val
850				855				860							
Phe	Ala	Gly	Met	Gly	Gly	Leu	Ala	Leu	Ile	Ala	Glu	Arg	Leu	Pro	Met
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Leu	Tyr	Pro	Glu	Val	Ile	Gln	Gln	Val	Ser	Ala	Pro	Val	Val	Thr	Ser
885				890				895							
Thr	Thr	Gln	Glu	Lys	Pro	Lys	Asp	Ser	Asp	Gln	Phe	Glu	Trp	Val	Thr
900				905				910							
Ile	Glu	Gln	Ser	Gly	Glu	Leu	Val	Tyr	Glu	Ala	Pro	Glu	Thr	Val	Ala
915				920				925							
Ala	Glu	Pro	Pro	Pro	Ile	Lys	Ser	Ala	Val	Gln	Thr	Met	Ser	Pro	Ile

930 935 940
 Pro Ala His Ser Leu Ala Ala Phe Gly Leu Phe Leu Arg Leu Pro Gly
 945 950 955 960
 Tyr Ala Glu Val Leu Leu Lys Glu Arg Lys His Ala Gln Cys Leu Leu
 965 970 975
 Arg Leu Val Leu Gly Val Thr Asp Asp Gly Glu Gly Ser His Ile Leu
 980 985 990
 Gln Ser Pro Ser Ala Asn Val Leu Pro Thr Leu Pro Phe His Val Leu
 995 1000 1005
 Arg Ser Leu Phe Ser Thr Thr Pro Leu Thr Thr Asp Asp Gly Val Leu
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 Cys Leu Ser Ala Leu Ser His His Ser Pro Arg Val Pro Asn Ser Ser
 1045 1050 1055
 Val Asn Gln Thr Glu Pro Gln Val Ser Ser Ser His Asn Pro Thr Ser
 1060 1065 1070
 Thr Glu Glu Gln Gln Leu Tyr Trp Ala Lys Gly Thr Gly Phe Gly Thr
 1075 1080 1085
 Gly Ser Thr Ala Ser Gly Trp Asp Val Glu Gln Ala Leu Thr Lys Gln
 1090 1095 1100
 Arg Leu Glu Glu Glu His Val Thr Cys Leu Leu Gln Val Leu Ala Ser
 1105 1110 1115 1120
 Tyr Ile Asn Pro Val Ser Ser Ala Val Asn Gly Glu Ala Gln Ser Ser
 1125 1130 1135
 His Glu Thr Arg Gly Gln Asn Ser Asn Ala Leu Pro Ser Val Leu Leu
 1140 1145 1150
 Glu Leu Leu Ser Gln Ser Cys Leu Ile Pro Ala Met Ser Ser Tyr Leu
 1155 1160 1165
 Arg Asn Asp Ser Val Leu Asp Met Ala Arg His Val Pro Leu Tyr Arg
 1170 1175 1180
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 Gln Ser Glu Cys Gln Thr Ser Val Gly Thr Leu Leu Ala Lys Met Lys
 1220 1225 1230
 Thr Cys Val Asp Thr Tyr Thr Asn Arg Leu Arg Ser Lys Arg Glu Asn
 1235 1240 1245
 Val Lys Thr Gly Val Lys Pro Asp Ala Ser Asp Gln Glu Pro Glu Gly
 1250 1255 1260
 Leu Thr Leu Leu Val Pro Asp Ile Gln Lys Thr Ala Glu Ile Val Tyr
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 Ala Ala Thr Thr Ser Leu Arg Arg Ala Asn Gln Glu Lys Lys Leu Gly
 1285 1290 1295
 Glu Tyr Ser Lys Lys Ala Ala Met Lys Pro Lys Pro Leu Ser Val Leu
 1300 1305 1310
 Lys Ser Leu Glu Glu Lys Tyr Val Ala Val Met Lys Lys Leu Gln Phe
 1315 1320 1325
 Asp Thr Phe Glu Met Val Ser Glu Asp Glu Asp Gly Lys Leu Gly Phe
 1330 1335 1340
 Lys Val Asn Tyr His Tyr Met Ser Gln Val Lys Asn Ala Asn Asp Ala
 1345 1350 1355 1360
 Asn Ser Ala Ala Arg Ala Arg Arg Leu Ala Gln Glu Ala Val Thr Leu

	1365		1370		1375
Ser Thr Ser Leu Pro Leu Ser Ser Ser Ser Val Phe Val Arg Cys					
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Asp Glu Glu Arg Leu Asp Ile Met Lys Val Leu Ile Thr Gly Pro Ala					
	1395		1400		1405
Asp Thr Pro Tyr Ala Asn Gly Cys Phe Glu Phe Asp Val Tyr Phe Pro					
	1410		1415		1420
Gln Asp Tyr Pro Ser Ser Pro Pro Leu Val Asn Leu Glu Thr Thr Gly					
	1425		1430		1435
Gly His Ser Val Arg Phe Asn Pro Asn Leu Tyr Asn Asp Gly Lys Val					
	1445		1450		1455
Cys Leu Ser Ile Leu Asn Thr Trp His Gly Arg Pro Glu Glu Lys Trp					
	1460		1465		1470
Asn Pro Gln Thr Ser Ser Phe Leu Gln Val Leu Val Ser Val Gln Ser					
	1475		1480		1485
Leu Ile Leu Val Ala Glu Pro Tyr Phe Asn Glu Pro Gly Tyr Glu Arg					
	1490		1495		1500
Ser Arg Gly Thr Pro Ser Gly Thr Gln Ser Ser Arg Glu Tyr Asp Gly					
	1505		1510		1515
Asn Ile Arg Gln Ala Thr Val Lys Trp Ala Met Leu Glu Gln Ile Arg					
	1525		1530		1535
Asn Pro Ser Pro Cys Phe Lys Glu Val Ile His Lys His Phe Tyr Leu					
	1540		1545		1550
Lys Arg Val Glu Ile Met Ala Gln Cys Glu Glu Trp Ile Ala Asp Ile					
	1555		1560		1565
Gln Gln Tyr Ser Ser Asp Lys Arg Val Gly Arg Thr Met Ser His His					
	1570		1575		1580
Ala Ala Ala Leu Lys Arg His Thr Ala Gln Leu Arg Glu Glu Leu Leu					
	1585		1590		1595
Lys Leu Pro Cys Pro Glu Gly Leu Asp Pro Asp Thr Asp Asp Ala Pro					
	1605		1610		1615
Glu Val Cys Arg Ala Thr Thr Gly Ala Glu Glu Thr Leu Met His Asp					
	1620		1625		1630
Gln Val Lys Pro Ser Ser Ser Lys Glu Leu Pro Ser Asp Phe Gln Leu					
	1635		1640		1645

<210> 5877

<211> 683

<212> DNA

<213> Homo sapiens

<400> 5877

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120

ctcactcagg actttcagag gagacgcctg cggggctgca gaaacctcta caagaaggac
180

ctcctcgccc acttcggctg tgtcaatgcc attgaattct ccaacaatgg aggccagtgg
240

ctggctcag gaggagatga cgcgggggtt ctgctatggc acatggaaca agccatccac
300

tccagggtca agccatata gctgaaagga gagcaccatt ccaacatttt ttgcctggct
360

ttcaacagtg ggaacactaa agtgttctct ggaggcaatg atgagcaagt tatectccat
 420
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 480
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 atttgggaca ttcgggaatc ccccatgga gageccttct gctgggcaaa ctatccatca
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<210> 5878

<211> 227

<212> PRT

<213> Homo sapiens

<400> 5878

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		20					25				30			
Arg	Gly	Leu	His	Gly	Asp	Pro	Leu	Leu	Thr	Gln	Asp	Phe	Gln	Arg
		35					40				45			
Arg	Leu	Arg	Gly	Cys	Arg	Asn	Leu	Tyr	Lys	Lys	Asp	Leu	Leu	Gly
		50				55					60			
Phe	Gly	Cys	Val	Asn	Ala	Ile	Glu	Phe	Ser	Asn	Asn	Gly	Gly	Gln
65				70					75					80
Leu	Val	Ser	Gly	Gly	Asp	Asp	Arg	Arg	Val	Leu	Leu	Trp	His	Met
			85					90					95	
Gln	Ala	Ile	His	Ser	Arg	Val	Lys	Pro	Ile	Gln	Leu	Lys	Gly	Glu
		100					105						110	
His	Ser	Asn	Ile	Phe	Cys	Leu	Ala	Phe	Asn	Ser	Gly	Asn	Thr	Lys
		115					120					125		
Phe	Ser	Gly	Gly	Asn	Asp	Glu	Gln	Val	Ile	Leu	His	Asp	Val	Glu
		130				135					140			
Ser	Glu	Thr	Leu	Asp	Val	Phe	Ala	His	Glu	Asp	Ala	Val	Tyr	Gly
145				150					155					160
Ser	Val	Ser	Pro	Val	Asn	Asp	Asn	Ile	Phe	Ala	Ser	Ser	Ser	Asp
			165					170					175	
Gly	Arg	Val	Leu	Ile	Trp	Asp	Ile	Arg	Glu	Ser	Pro	His	Gly	Glu
		180					185						190	
Phe	Cys	Trp	Ala	Asn	Tyr	Pro	Ser	Ala	Phe	His	Ser	Val	Met	Phe
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<210> 5879

<211> 1555

<212> DNA

<213> Homo sapiens

<400> 5879

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120
tccatttggg gtgctgggga acgttattcc cagagagggt cctcagtga ggcgtgtgt
180
ctcctacgca acttctgagg gctggagggt gccaaaggca gctgctgacc gcctggtgct
240
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300
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360
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420
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480
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540
aaccatccct gtaaagtgtc agtagtagcc cctgtgtcag tcagggtccc tgcaagaaat
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720
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780
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900
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1080
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1140
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1200
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1320
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1440
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1555

<210> 5880
 <211> 185
 <212> PRT
 <213> Homo sapiens

<400> 5880
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 35 40 45
 Phe Tyr Asp Val Glu Ala Leu Arg Asp Tyr Leu Leu Gln Arg Glu Met
 50 55 60
 Tyr Lys Val His Glu Lys Asn Arg Ser Tyr Thr Trp Leu Glu Lys Gln
 65 70 75 80
 His Gly Pro Tyr Gly Ala Gly Ala Phe Phe Ile Leu Lys Gln Gly Gly
 85 90 95
 Ala Val Lys Phe Arg Asp Lys Glu Trp Ile Arg Pro Asp Lys Tyr Gly
 100 105 110
 His Phe Ser Gln Glu Phe Trp Asn Phe Cys Glu Val Pro Val Glu Ala
 115 120 125
 Val Asp Ala Gly Asp Cys Asp Ile Asn Tyr Glu Gly Leu Asp Asn Leu
 130 135 140
 Arg Thr Ser Ala Gly Trp Thr Ser Arg Thr Ser Leu Pro Cys Pro Thr
 145 150 155 160
 Leu Ala Ser Leu Arg Tyr Trp Trp Arg Arg Cys Cys Pro Ile Ala Arg
 165 170 175
 Leu Trp Glu Ser Thr Gly Leu Arg Ala
 180 185

<210> 5881
 <211> 327
 <212> DNA
 <213> Homo sapiens

<400> 5881
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 agccacacgc tgcccagggc cagcgcgccc tcgctggacg accccgcgcg ccgccacatg
 180
 accatccacg tgccgctgga cgctcgcg cccaagcagc tcatcagcga gtggaagcag
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<210> 5882
 <211> 109
 <212> PRT

<213> Homo sapiens

<400> 5882

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          20           25           30
Ala Lys Glu Asn Met Val Thr Phe Ser His Thr Leu Pro Arg Ala Ser
          35           40           45
Ala Pro Ser Leu Asp Asp Pro Ala Arg Arg His Met Thr Ile His Val
          50           55           60
Pro Leu Asp Ala Ser Arg Ser Lys Gln Leu Ile Ser Glu Trp Lys Gln
65           70           75           80
Lys Ser Leu Glu Gly Arg Gly Leu Gly Leu Pro Asp Asp Ala Ser Pro
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Gly His Leu Arg Ala Pro Ala Glu Pro Met Pro Glu Xaa
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<210> 5883

<211> 579

<212> DNA

<213> Homo sapiens

<400> 5883

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120
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180
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420
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480
ggagcgatgg ctgaaggagc tctatgacca tgctgaagcc acgatcgctg tcatgctcgt
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<210> 5884

<211> 71

<212> PRT

<213> Homo sapiens

<400> 5884

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Leu Ile Gly Glu Ser Gly Val Gly Lys Thr Asn Leu Leu Ser Arg Phe

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<210> 5885
<211> 1905
<212> DNA
<213> Homo sapiens
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5056

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 1320
 ggggaccagc agctacccaa ggagaacat gcatgaacag tatcagtcgt ctgggctcat
 1380
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 1440
 caggctgggt gtcctcacag gaggtagggc tacaccaat tccaaaagcc tgagaagaga
 1500
 gaagtggagg gggaggcgag tgtgtgaata aaggctccca tcaggtcaaa aaaaaaaaaa
 1560
 aaagaaaaca aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaactccgg gggggggccc
 1620
 agtaccatt ttgcccttta agtgggggct atttaacctt taacttggcc ccggtttttt
 1680
 aaacctcttg atcttgggga aacccggggg gggtttcccc cctttaattg cccttttaag
 1740
 ggcaccccc tcttttgcca ctgggggaat ttttgccaag ggggcccccc atttagcctt
 1800
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<210> 5886

<211> 265

<212> PRT

<213> Homo sapiens

<400> 5886

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			20				25					30			
Gly	Ala	Gly	Pro	Leu	Tyr	Ser	His	His	Leu	Pro	Thr	Ser	Pro	Leu	Gln
	35						40				45				
Lys	Ala	Leu	Leu	Ala	Ala	Gly	Ser	Ala	Ala	Met	Ala	Leu	Tyr	Asn	Pro
	50					55				60					
Tyr	Arg	His	Asp	Met	Val	Ala	Val	Leu	Gly	Glu	Thr	Thr	Gly	His	Arg
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Gln Ser Leu	Gln Val Leu Val Ser Glu	Leu Ile Pro Trp	Ala Val Gln		
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Asn Gly Arg	Arg Ala Pro Cys Val Leu	Asn Leu Tyr Tyr Glu	Arg Arg		
225	230	235	240		
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<210> 5887

<211> 3779

<212> DNA

<213> Homo sapiens

<400> 5887

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<210> 5888

<211> 166

<212> PRT

<213> Homo sapiens

<400> 5888

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Pro	Glu	Tyr	Met	Trp	Phe	Leu	Leu	Tyr	Cys	Glu	Gly	Thr	Arg	Phe	Thr
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Asp	Ile	Pro	Leu	Asp	Glu	Lys	Glu	Ala	Ala	Gln	Trp	Leu	His	Lys	Leu				
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Tyr	Gln	Glu	Lys	Asp	Ala	Leu	Gln	Glu	Val	Lys	Thr	Leu	Asp	Gly	Met				
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<211> 2198

<212> DNA

<213> Homo sapiens

<400> 5889

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<210> 5890

<211> 118

<212> PRT

<213> Homo sapiens

<400> 5890

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			20					25					30		
Glu	Cys	Ser	Gly	Thr	Ile	Thr	Ala	His	Cys	Ser	Leu	Asp	Phe	Pro	Gly
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<210> 5891

<211> 1459

<212> DNA

<213> Homo sapiens

<400> 5891

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<210> 5892

<211> 212

<212> PRT

<213> Homo sapiens

<400> 5892

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Gly	Lys	Thr	Tyr	Pro	Ala	His	Ala	Phe	Leu	Ala	Ala	Phe	Leu	Gly	Gly
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<210> 5893

<211> 1389

<212> DNA

<213> Homo sapiens

<400> 5893

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<210> 5894

<211> 260

<212> PRT

<213> Homo sapiens

<400> 5894

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Cys Leu Tyr Thr Cys Gln Ile Lys Asp Gly Gly Val Gln Pro Gln Phe
      85           90           95
Glu Ile Val Pro Glu Asp Asp Pro Gln Asn Ala Ile Val Ser Ser Ser
      100          105          110
Ala Asp Ala Cys His Ala Glu Leu Leu Arg Thr Ile Ser Thr Thr Met
      115          120          125
Gly Lys Leu Met Pro Asn Leu Leu Pro Ala Gly Ala Asp Phe Phe Gly
      130          135          140
Phe Ser His Pro Ala Ile His Asn Leu Ile Gln Ser Cys Pro Gly Ala
      145          150          155          160
Arg Lys Cys Ile Asn Tyr Gln Trp Val Lys Phe Asp Val Cys Lys Pro
      165          170          175
Gly Asp Gly Gln Leu Pro Glu Gly Leu Pro Glu Asn Asp Ala Ala Met
      180          185          190
Ser Phe Glu Ala Phe Gln Arg Gln Ile Phe Asp Glu Asp Gln Asn Asp
      195          200          205
Pro Leu Leu Pro Gly Ser Leu Asp Leu Pro Glu Leu Gln Pro Ala Ala
      210          215          220
Phe Val Ser Ser Tyr Gln Pro Met Tyr Leu Thr His Glu Pro Leu Val
      225          230          235          240
Asp Thr His Leu Gln His Leu Lys Ser Pro Ser Gln Gly Ser Pro Ile
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Gln Ser Ser Asp
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<210> 5895

<211> 2748

<212> DNA

<213> Homo sapiens

<400> 5895

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<210> 5896

<211> 261

<212> PRT

<213> Homo sapiens

<400> 5896

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			20					25					30		
Arg	Asp	Leu	Gly	Gly	Ser	Ser	Ala	Ala	Thr	Glu	Ala	Val	Ala	Ile	Leu
		35					40					45			
Thr	Ala	Thr	Tyr	Pro	Val	Gly	His	Met	Pro	Tyr	Gly	Trp	Leu	Thr	Glu
	50					55					60				
Ile	Arg	Ala	Val	Tyr	Pro	Ala	Phe	Asp	Lys	Asn	Asn	Pro	Ser	Asn	Lys
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Leu	Val	Ser	Thr	Ser	Asn	Thr	Val	Thr	Ala	Ala	His	Ile	Lys	Lys	Phe
				85					90					95	
Thr	Phe	Val	Cys	Met	Ala	Leu	Ser	Leu	Thr	Leu	Cys	Phe	Val	Met	Phe
		100						105					110		
Trp	Thr	Pro	Asn	Val	Ser	Glu	Lys	Ile	Leu	Ile	Asp	Ile	Ile	Gly	Val
		115					120					125			
Asp	Phe	Ala	Phe	Ala	Glu	Leu	Cys	Val	Val	Pro	Leu	Arg	Ile	Phe	Ser
	130					135					140				
Phe	Phe	Pro	Val	Pro	Val	Thr	Val	Arg	Ala	His	Leu	Thr	Gly	Trp	Leu
145					150					155				160	
Met	Thr	Leu	Lys	Lys	Thr	Phe	Val	Leu	Ala	Pro	Ser	Ser	Val	Leu	Arg
			165						170					175	
Ile	Ile	Val	Leu	Ile	Ala	Ser	Leu	Val	Val	Leu	Pro	Tyr	Leu	Gly	Val

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His	Gly	Ala	Thr	Leu	Gly	Val	Gly	Ser	Leu	Leu	Ala	Gly	Phe	Val	Gly
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	210				215						220				
Lys	Lys	Lys	Met	Glu	Asn	Glu	Ser	Ala	Thr	Glu	Gly	Glu	Asp	Ser	Ala
	225				230					235					240
Met	Thr	Asp	Met	Pro	Pro	Thr	Glu	Glu	Val	Thr	Asp	Ile	Val	Glu	Met
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<210> 5897

<211> 1930

<212> DNA

<213> Homo sapiens

<400> 5897

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1080

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<210> 5898

<211> 242

<212> PRT

<213> Homo sapiens

<400> 5898

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		20					25					30			
Glu	Ile	Cys	Ala	Asp	Glu	Phe	Pro	Gly	Ser	Ser	Ala	Thr	Tyr	Arg	Ile
		35					40					45			
Leu	Glu	Val	Gly	Cys	Gly	Val	Gly	Asn	Thr	Val	Phe	Pro	Ile	Leu	Gln
		50				55					60				
Thr	Asn	Asn	Asp	Pro	Gly	Leu	Phe	Val	Tyr	Cys	Cys	Asp	Phe	Ser	Ser
65				70					75					80	
Thr	Ala	Ile	Glu	Leu	Val	Gln	Thr	Asn	Ser	Glu	Tyr	Asp	Pro	Ser	Arg
				85					90					95	
Cys	Phe	Ala	Phe	Val	His	Asp	Leu	Cys	Asp	Glu	Glu	Lys	Ser	Tyr	Pro
		100						105					110		
Val	Pro	Lys	Gly	Ser	Leu	Asp	Ile	Ile	Ile	Leu	Ile	Phe	Val	Leu	Ser
		115					120					125			
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130		135		140											
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			165							170					175
Phe	Tyr	Val	Arg	Gly	Asp	Gly	Thr	Arg	Val	Tyr	Phe	Phe	Thr	Gln	Glu
			180							185				190	
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		195					200					205			
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	210					215					220				
Tyr	Arg	Val	Trp	Ile	Gln	Cys	Lys	Tyr	Cys	Lys	Pro	Leu	Leu	Ser	Ser
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<210> 5899

<211> 1589

<212> DNA

<213> Homo sapiens

<400> 5899

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<210> 5900

<211> 345

<212> PRT

<213> Homo sapiens

<400> 5900

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Asp	Thr	Phe	Leu	Glu	Glu	Ile	Asn	Lys	Val	Gly	Lys	Glu	Leu	Gly	Ile
			20					25					30		
Ile	Pro	Thr	Ile	Ile	Arg	Asp	Glu	Glu	Leu	Lys	Thr	Arg	Gly	Phe	Gly
			35				40					45			
Gly	Ile	Tyr	Gly	Val	Gly	Lys	Ala	Ala	Leu	His	Pro	Pro	Ala	Leu	Ala
	50					55					60				
Val	Leu	Ser	His	Thr	Pro	Asp	Gly	Ala	Thr	Gln	Thr	Ile	Ala	Trp	Val
	65				70					75				80	
Gly	Lys	Gly	Ile	Val	Tyr	Asp	Thr	Gly	Gly	Leu	Ser	Ile	Lys	Gly	Lys
			85					90					95		
Thr	Thr	Met	Pro	Gly	Met	Lys	Arg	Asp	Cys	Gly	Gly	Ala	Ala	Ala	Val
			100					105					110		
Leu	Gly	Ala	Phe	Arg	Ala	Ala	Ile	Lys	Gln	Gly	Phe	Lys	Asp	Asn	Leu
			115				120					125			
His	Ala	Val	Phe	Cys	Leu	Ala	Glu	Asn	Ser	Val	Gly	Pro	Asn	Ala	Thr
	130					135					140				
Arg	Pro	Asp	Asp	Ile	His	Leu	Leu	Tyr	Ser	Gly	Lys	Thr	Val	Glu	Ile
	145				150					155				160	
Asn	Asn	Thr	Asp	Ala	Glu	Gly	Arg	Leu	Val	Leu	Ala	Asp	Gly	Val	Ser
			165					170					175		
Tyr	Ala	Cys	Lys	Asp	Leu	Gly	Ala	Asp	Ile	Ile	Leu	Asp	Met	Ala	Thr
			180					185					190		
Leu	Thr	Gly	Ala	Gln	Gly	Ile	Ala	Thr	Gly	Lys	Tyr	His	Ala	Ala	Val

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  210              215              220
Lys Cys Gly Asp Leu Val His Pro Leu Val Tyr Cys Pro Glu Leu His
  225              230              235              240
Phe Ser Glu Phe Thr Ser Ala Val Ala Asp Met Lys Asn Ser Val Ala
      245              250              255
Asp Arg Asp Asn Ser Pro Ser Ser Cys Ala Gly Leu Phe Ile Ala Ser
      260              265              270
His Ile Gly Phe Asp Trp Pro Gly Val Trp Val His Leu Asp Ile Ala
      275              280              285
Ala Pro Val His Ala Gly Glu Arg Ala Thr Gly Phe Gly Val Ala Leu
      290              295              300
Leu Leu Ala Leu Phe Gly Arg Ala Ser Glu Asp Pro Leu Leu Asn Leu
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Arg Asp Ser Lys Arg Arg Arg Leu Val
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<210> 5901
 <211> 984
 <212> DNA
 <213> Homo sapiens

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  180
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  240
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  300
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  360
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  420
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<210> 5902

<211> 328

<212> PRT

<213> Homo sapiens

<400> 5902

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			20					25					30		
Glu	Ile	Glu	Ala	Lys	Leu	Asp	Lys	Leu	Val	Lys	Leu	Cys	Ser	Gly	Met
		35				40						45			
Val	Glu	Ala	Gly	Lys	Ala	Tyr	Val	Ser	Thr	Ser	Arg	Leu	Phe	Val	Ser
	50					55					60				
Gly	Val	Arg	Asp	Leu	Ser	Gln	Gln	Cys	Gln	Gly	Asp	Thr	Val	Ile	Ser
65				70					75					80	
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<211> 308

<212> PRT

<213> Homo sapiens

<400> 5904

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<212> PRT

<213> Homo sapiens

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 Leu Lys Gly His Arg Ser Val Gly Gly Ile Arg Ala Ser Leu Tyr Asn
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<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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Pro Asp Ser Arg Ala Leu His Tyr Met Lys Lys Leu Tyr Lys Thr Tyr
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His Pro Asn Thr Ile Glu Tyr Lys Gly Cys Tyr Leu Lys Glu His Thr
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His Arg Asp Ile Lys Ala Gly Asn Ile Leu Leu Thr Glu Pro Gly Gln
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Ser Phe Val Gly Thr Pro Tyr Trp Met Ala Pro Glu Val Ile Leu Ala
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 Ser Thr Arg Val Glu Phe Asp Leu Pro Glu Tyr Ser Val Arg Arg Arg
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 Tyr Gln Asp Phe Asp Trp Leu Arg Ser Lys Leu Glu Glu Ser Gln Pro
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<211> 981

<212> PRT

<213> Homo sapiens

<400> 5918

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 Leu Ile Ser Gly His Asn Ile Val Gln Pro Thr Asp Ile Glu Glu Asn
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 Arg Thr Met Leu Phe Thr Ile Gly Gln Ser Glu Val Tyr Leu Ile Ser
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 Pro Asp Thr Lys Lys Ile Ala Leu Glu Lys Asn Phe Lys Glu Ile Ser
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Leu	Lys	Phe	Leu	Met	Phe	Asp
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<212> DNA

<213> Homo sapiens

<400> 5919

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<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<211> 1252

<212> PRT

<213> Homo sapiens

<400> 5922

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Lys	Ser	Val	Ile	Ile	Trp	Thr	Ser	Lys	Leu	Glu	Gly	Ile	Leu	Lys	Tyr
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Thr	His	Asn	Asp	Ala	Ile	Gln	Cys	Val	Ser	Tyr	Asn	Pro	Ile	Thr	His
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Gln	Leu	Ala	Ser	Cys	Ser	Ser	Ser	Asp	Phe	Gly	Leu	Trp	Ser	Pro	Glu
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Gln	Lys	Ser	Val	Ser	Lys	His	Lys	Ser	Ser	Ser	Lys	Ile	Ile	Cys	Cys
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Ser	Trp	Thr	Asn	Asp	Gly	Gln	Tyr	Leu	Ala	Leu	Gly	Met	Phe	Asn	Gly
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Ile	Ile	Ser	Ile	Arg	Asn	Lys	Asn	Gly	Glu	Glu	Lys	Val	Lys	Ile	Glu
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Arg	Pro	Gly	Gly	Ser	Leu	Ser	Pro	Ile	Trp	Ser	Ile	Cys	Trp	Asn	Pro
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Ser	Ser	Arg	Trp	Glu	Ser	Phe	Trp	Met	Asn	Arg	Glu	Asn	Glu	Asp	Ala
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Glu	Asp	Val	Ile	Val	Asn	Arg	Tyr	Ile	Gln	Glu	Ile	Pro	Ser	Thr	Leu
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Lys	Ser	Ala	Val	Tyr	Ser	Ser	Gln	Gly	Ser	Glu	Ala	Glu	Glu	Glu	Glu
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Gly Ser Asp Lys Gln Val	Ser Leu Phe Thr Lys Asp	Gly Val Arg Leu		
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Gly Thr Val Gly Glu Gln	Asn Ser Trp Val Trp Thr	Cys Gln Ala Lys		
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Pro Asp Ser Asn Tyr Val	Val Val Gly Cys Gln Asp	Gly Thr Ile Ser		
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Phe Tyr Gln Leu Ile Phe	Ser Thr Val His Gly	Leu Tyr Lys Asp Arg		
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Tyr Ala Tyr Arg Asp	Ser Met Thr Asp	Val Ile Val Gln His	Leu Ile	
325	330	335		
Thr Glu Gln Lys Val Arg	Ile Lys Cys Lys Glu	Leu Val Lys Lys Ile		
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Ala Ile Tyr Arg Asn Arg	Leu Ala Ile Gln Leu	Pro Glu Lys Ile Leu		
355	360	365		
Ile Tyr Glu Leu Tyr Ser	Glu Asp Leu Ser Asp	Met His Tyr Arg Val		
370	375	380		
Lys Glu Lys Ile Ile Lys	Lys Phe Glu Cys Asn	Leu Leu Val Val Cys		
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<211> 1989

<212> DNA

<213> Homo sapiens

<400> 5923

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<211> 146

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<213> Homo sapiens

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<212> DNA

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<212> PRT

<213> Homo sapiens

<400> 5926

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	20	25	30
Leu Asp Leu Pro Ser Leu Thr Ser Leu Leu Ser Glu Lys Ala Lys Glu			
	35	40	45
Phe Leu Met Glu Asn Arg Val Gln Ser Phe Tyr Gln Gln Glu Leu Glu			
	50	55	60
Met Val Glu Ser Leu Leu Ser Leu Ala Asn Gln Pro Val Ile His Ser			
65	70	75	80
Ala Cys Ser Asp Gln Val Asn Phe Lys Lys Asp Thr Thr Ser Lys Ala			
	85	90	95
Ile His Ser Ile Phe Lys Asn Ala Ile Gln Leu Leu Gln Glu Lys Gly			
	100	105	110
Leu Val Phe Gln Lys Asp Asp Gly Phe Asp Asn Leu Tyr Tyr Val Thr			
	115	120	125
Arg Glu Asp Lys Asp Leu His Arg Lys Ile His Arg Ile Ile Gln Gln			
	130	135	140
Asp Cys Gln Lys Pro Asn His Met Glu Lys Gly Cys His Phe Leu His			
145	150	155	160
Ile Leu Ala Cys Ala Arg Leu Ser Ile Arg Pro Gly Leu Ser Glu Ala			
	165	170	175
Val Leu Gln Gln Val Leu Glu Leu Leu Glu Asp Gln Ser Asp Ile Val			
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Ser Thr Met Glu His Tyr Tyr Thr Ala Phe			
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<210> 5929

<211> 606

<212> DNA

<213> Homo sapiens

<400> 5929

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606

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<210> 5930
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 <212> PRT
 <213> Homo sapiens

<400> 5930
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 35 40 45
 Leu Gln Pro Ala Gly Ser Val Ser Ser Thr Pro Leu Ser Thr Pro Cys
 50 55 60
 Ser Ser Val Pro Ser Ser Pro Ser Phe Ser Pro Thr Glu Gln Lys Thr
 65 70 75 80
 His Leu Glu Asp Leu Tyr Trp Met Ala Ser Asn Tyr Gln Gln Met Asn
 85 90 95
 Pro Glu Ala Leu Asn Leu Thr Pro Glu Asp Ala Val Glu Ala Leu Ile
 100 105 110
 Gly Ser His Pro Val Pro Gln Pro Leu Gln Ser Phe Asp Ser Phe Arg
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 Gly Ala His His His His His His His His Pro His Pro His His Ala
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<210> 5931
 <211> 478
 <212> DNA
 <213> Homo sapiens

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 360
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<210> 5932
 <211> 109
 <212> PRT
 <213> Homo sapiens

<400> 5932

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      20           25           30
Glu Arg Met Arg Asn Ser Arg Asp Arg Leu Leu Asn Arg Tyr Arg Gln
      35           40           45
Ala Gly Ser Ser Gly Pro Gly Asn Ser Gln Asn Ser Phe Leu Val Gln
      50           55           60
Glu Val Met Glu Glu Glu Trp Asn Ala Leu Gln Ser Val Glu Asn Cys
65           70           75           80
Pro Glu Asp Leu Ala Gln Leu Glu Glu Leu Ile Asp Met Ala Val Leu
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Glu Glu Ile Gln Gln Glu Leu Ile Asn Gln Gly Thr Thr
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<210> 5933

<211> 1953

<212> DNA

<213> Homo sapiens

<400> 5933

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960

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<210> 5934

<211> 314

<212> PRT

<213> Homo sapiens

<400> 5934

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 35 40 45
 Ser Leu Phe Glu Glu Ala His Lys Met Val Arg Glu Ala Asn Met Lys
 50 55 60
 Gln Ala Ala Ser Glu Lys Gln Leu Lys Glu Ala Arg Gly Lys Ile Asp
 65 70 75 80
 Met Leu Gln Ala Glu Val Thr Ala Leu Lys Thr Leu Val Ile Thr Ser
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 Thr Pro Ala Ser Pro Asn Arg Glu Leu His Pro Gln Leu Leu Ser Pro

100 105 110
 Thr Lys Ala Gly Pro Arg Lys Gly His Ser Arg His Lys Ser Thr Ser
 115 120 125
 Ser Thr Leu Cys Pro Ala Val Cys Pro Ala Ala Gly His Thr Leu Thr
 130 135 140
 Pro Asp Arg Glu Gly Lys Glu Val Asp Thr Ile Leu Phe Ala Glu Phe
 145 150 155 160
 Gln Ala Trp Arg Glu Ser Pro Thr Leu Asp Lys Thr Cys Pro Phe Leu
 165 170 175
 Glu Arg Val Tyr Arg Glu Asp Val Gly Pro Cys Leu Asp Phe Thr Met
 180 185 190
 Gln Glu Leu Ser Val Leu Val Arg Ala Ala Val Glu Asp Asn Thr Leu
 195 200 205
 Thr Ile Glu Pro Val Ala Ser Gln Thr Leu Pro Thr Val Lys Val Ala
 210 215 220
 Glu Val Asp Cys Ser Ser Thr Asn Thr Cys Ala Leu Ser Gly Leu Thr
 225 230 235 240
 Arg Thr Cys Arg His Arg Ile Arg Leu Gly Asp Ser Lys Ser His Tyr
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 Tyr Ile Ser Pro Ser Ser Arg Ala Arg Ile Thr Ala Val Cys Asn Phe
 260 265 270
 Phe Thr Tyr Ile Arg Tyr Ile Gln Gln Gly Leu Val Arg Gln Asp Ala
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<210> 5935

<211> 2727

<212> DNA

<213> Homo sapiens

<400> 5935

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<210> 5936

<211> 154

<212> PRT

<213> Homo sapiens

<400> 5936

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		20						25					30		
Asp	Gln	Glu	Pro	Pro	Pro	Pro	Tyr	Gln	Glu	Gln	Val	Pro	Val	Pro	Val
		35					40					45			
Tyr	His	Pro	Thr	Pro	Ser	Gln	Thr	Arg	Leu	Ala	Thr	Gln	Leu	Thr	Glu
	50					55					60				
Glu	Glu	Gln	Ile	Arg	Ile	Ala	Gln	Arg	Ile	Gly	Leu	Ile	Gln	His	Leu
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Pro	Lys	Gly	Val	Tyr	Asp	Pro	Gly	Arg	Asp	Gly	Ser	Glu	Lys	Lys	Ile
			85						90					95	
Arg	Glu	Cys	Val	Ile	Cys	Met	Met	Asp	Phe	Val	Tyr	Gly	Asp	Pro	Ile
			100					105					110		
Arg	Phe	Leu	Pro	Cys	Met	His	Ile	Tyr	His	Leu	Asp	Cys	Ile	Asp	Asp
		115					120					125			
Trp	Leu	Met	Arg	Ser	Phe	Thr	Cys	Pro	Ser	Cys	Met	Glu	Pro	Val	Asp
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Ala	Ala	Leu	Leu	Ser	Ser	Tyr	Glu	Thr	Asn						
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<210> 5937

<211> 1536

<212> DNA

<213> Homo sapiens

<400> 5937

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<210> 5938

<211> 406

<212> PRT

<213> Homo sapiens

<400> 5938

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 20           25           30
Gly Lys Ser Leu Ile Val Pro Phe Lys Gly Ser Arg Val Ile Asp Ser
 35           40           45
Thr Val Leu Pro Gly Ile Leu Ile Glu Met Ser Glu Val Gln Leu Met
 50           55           60
Arg Leu Leu Pro Ile Lys Lys Ser Thr Ala Leu Lys Val Ala Leu Phe
 65           70           75           80
Cys Thr Thr Leu Ser Gly Asp Thr Ser Asp Thr Gly Glu Gly Thr Val
 85           90           95
Val Val Ser Tyr Gly Val Ser Leu Glu Asn Ala Val Leu Asp Gln Leu
 100          105          110
Leu Asn Leu Gly Arg Gln Leu Ile Ser Asp His Val Asp Leu Val Leu
 115          120          125
Cys Gln Lys Val Ile His Pro Ser Leu Lys Gln Phe Leu Asn Met His
 130          135          140
Arg Ile Ile Ala Ile Asp Arg Ile Gly Val Thr Leu Met Glu Pro Leu
 145          150          155          160
Thr Lys Met Thr Gly Thr Gln Pro Ile Gly Ser Leu Gly Ser Ile Cys
 165          170          175
Pro Asn Ser Tyr Gly Ser Val Lys Asp Val Cys Thr Ala Lys Phe Gly
 180          185          190
Ser Lys His Phe Phe His Leu Ile Pro Asn Glu Ala Thr Ile Cys Ser
 195          200          205
Leu Leu Leu Cys Asn Arg Asn Asp Thr Ala Trp Asp Glu Leu Lys Leu
 210          215          220
Thr Cys Gln Thr Ala Leu His Val Leu Gln Leu Thr Leu Lys Glu Pro
 225          230          235          240
Trp Ala Leu Leu Gly Gly Gly Cys Thr Glu Thr His Leu Ala Ala Tyr
 245          250          255
Ile Arg His Lys Thr His Asn Asp Pro Glu Ser Ile Leu Lys Asp Asp
 260          265          270
Glu Cys Thr Gln Thr Glu Leu Gln Leu Ile Ala Glu Ala Phe Cys Ser
 275          280          285
Ala Leu Glu Ser Val Val Gly Ser Leu Glu His Asp Gly Gly Glu Ile
 290          295          300
Leu Thr Asp Met Lys Tyr Gly His Leu Trp Ser Val Gln Ala Asp Ser
 305          310          315          320
Pro Cys Val Ala Asn Trp Pro Asp Leu Leu Ser Gln Cys Gly Cys Gly
 325          330          335
Leu Tyr Asn Ser Gln Glu Glu Leu Asn Trp Ser Phe Leu Arg Ser Thr
 340          345          350
Arg Arg Pro Phe Val Pro Gln Ser Cys Leu Pro His Glu Ala Val Gly
 355          360          365
Ser Ala Ser Asn Leu Thr Leu Asp Cys Leu Thr Ala Lys Leu Ser Gly
 370          375          380
Leu Gln Val Ala Val Glu Thr Ala Asn Leu Ile Leu Asp Leu Ser Tyr
 385          390          395          400
Val Ile Glu Asp Lys Asn

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405

<210> 5939

<211> 795

<212> DNA

<213> Homo sapiens

<400> 5939

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<210> 5940

<211> 96

<212> PRT

<213> Homo sapiens

<400> 5940

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Cys Lys Arg Lys Glu Gln Glu Lys Glu Arg Ala Leu Gln Pro
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Lys Lys Gln Arg Leu Val Phe Thr Asp Leu Gln Arg Arg Thr Leu Ile
20          25          30
Ala Ile Phe Lys Glu Asn Lys Arg Pro Ser Lys Glu Met Gln Val Thr
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<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 5942

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			20					25					30		
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 Gly Val Ser Ser Ile Thr Lys Leu Gln Arg Gln Pro Phe Gly Val Glu


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Cys Phe Pro Lys Ser His Phe Ser Val Thr Gln Ala Gly Glu Gln Trp
  65              70              75              80
Arg Asp Leu Ser Ser Pro Gln Pro Pro Pro Arg Phe Lys Gln Phe
      85              90              95
Ser Cys Leu Ser Leu Pro Ser Ser Trp Asp His Arg His Pro Pro Pro
      100              105              110
Arg Pro Ala Asn Phe Cys Ile Phe Ser Arg Asp Glu Val Ser Pro Arg
      115              120              125
Ser Arg Ser Pro Asp Leu Met Xaa Ser Ala His Leu Gly Leu Pro Lys
      130              135              140
Cys Trp Asp Tyr Arg Arg Glu Pro Leu Arg Pro Ala Gln Ile Ser Leu
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 Ser Ser Gly Ala Ala Gly Pro Thr Gly Lys Asn Gly Glu Lys Ile Gln
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 4440
 gggaagcgca ggcgcctgct agggacgcta tggacaccgt gagtccaagg cgctgctcct
 4500
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 4560
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<210> 5950

<211> 397

<212> PRT

<213> Homo sapiens

<400> 5950

Met	Pro	Arg	Ala	Ala	Arg	Lys	Ala	Val	Cys	Ala	Glu	Gln	Trp	Met	Phe
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Leu	Thr	Phe	Phe	Lys	Asp	Gly	Tyr	Glu	Gln	Leu	Arg	Gln	Leu	Ser	Gln
			20					25					30		
His	Ala	Met	Lys	Gly	Val	Ile	Arg	Val	Lys	Phe	Val	Asn	Asp	Leu	Gly
		35				40					45				
Val	Asp	Glu	Ala	Gly	Ile	Asp	Gln	Asp	Gly	Val	Phe	Lys	Glu	Phe	Leu
	50				55					60					
Glu	Glu	Ile	Ile	Lys	Arg	Val	Phe	Asp	Pro	Ala	Leu	Asn	Leu	Phe	Lys
65				70					75					80	
Thr	Thr	Ser	Gly	Asp	Glu	Arg	Leu	Tyr	Pro	Ser	Pro	Thr	Ser	Tyr	Ile
			85					90						95	
His	Glu	Asn	Tyr	Leu	Gln	Leu	Phe	Glu	Phe	Val	Gly	Lys	Met	Leu	Gly
		100						105					110		
Lys	Ala	Val	Tyr	Glu	Gly	Ile	Val	Val	Asp	Val	Pro	Phe	Ala	Ser	Phe
	115					120					125				
Phe	Leu	Ser	Gln	Leu	Leu	Gly	His	His	His	Ser	Val	Phe	Tyr	Ser	Ser
	130				135						140				
Val	Asp	Glu	Leu	Pro	Ser	Leu	Asp	Ser	Glu	Phe	Tyr	Lys	Asn	Leu	Thr
145				150					155					160	
Ser	Ile	Lys	Arg	Tyr	Asp	Gly	Asp	Ile	Thr	Asp	Leu	Gly	Leu	Thr	Leu
			165					170					175		
Ser	Tyr	Asp	Glu	Asp	Val	Met	Gly	Gln	Leu	Val	Cys	His	Glu	Leu	Ile
		180					185						190		
Pro	Gly	Gly	Lys	Thr	Ile	Pro	Val	Thr	Asn	Glu	Asn	Lys	Ile	Ser	Tyr
	195					200						205			
Ile	His	Leu	Met	Ala	His	Phe	Arg	Met	His	Thr	Gln	Ile	Lys	Asn	Gln

210	215	220
Thr Ala Ala Leu Ile Ser Gly Phe Arg Ser Ile Ile Lys Pro Glu Trp		
225	230	235
Ile Arg Met Phe Ser Thr Pro Glu Leu Gln Arg Leu Ile Ser Gly Asp		240
	245	250
Asn Ala Glu Ile Asp Leu Glu Asp Leu Lys Lys His Thr Val Tyr Tyr		255
	260	265
Gly Gly Phe His Gly Ser His Arg Val Ile Ile Trp Leu Trp Asp Ile		270
	275	280
Leu Ala Ser Asp Phe Thr Pro Asp Glu Arg Ala Met Phe Leu Lys Phe		285
	290	295
Val Thr Ser Cys Ser Arg Pro Pro Leu Leu Gly Phe Ala Tyr Leu Lys		300
305	310	315
Pro Pro Phe Ser Ile Arg Cys Val Glu Val Ser Asp Asp Gln Asp Thr		320
	325	330
Gly Asp Thr Leu Gly Ser Val Leu Arg Gly Phe Phe Thr Ile Arg Lys		335
	340	345
Arg Glu Pro Gly Gly Arg Leu Pro Thr Ser Ser Thr Cys Phe Asn Leu		350
	355	360
Leu Lys Leu Pro Asn Tyr Ser Lys Lys Ser Val Leu Arg Glu Lys Leu		365
	370	375
Arg Tyr Ala Ile Ser Met Asn Thr Gly Phe Glu Leu Ser		380
385	390	395

<210> 5951

<211> 1724

<212> DNA

<213> Homo sapiens

<400> 5951

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 120
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 180
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 240
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 300
 tctccctccc tgccctccctg actttgcaac accgcgttcc gggaggaccg gcctcggcga
 360
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 420
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 480
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 540
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 600
 atctgcatgc cgctcacctg agacgagtac aaaattggac agctgtacat gatcagcaaa
 660
 cacagccatg aacagagtga ccggggagaa ggggtggagg tcgtccagaa tgagcccttt
 720

gaggaccctc accatggcaa tgggcagttc accgagaagc ggggtgtatct caacagcaaa
 780
 ctgcctagtt gggctagagc tgttggtcccc aaaatatattt atgtgacaga gaaggcttgg
 840
 aactattatc cctacacaat tacagaatac acaigtctct ttctgccgaa attctccatt
 900
 catatagaaa ccaagtatga ggacaacaaa ggaagcaatg acaccatttt cgacaatgaa
 960
 gccaaagacg tggagagaga agtttgcttt attgatattg cctgcgatga aattccagag
 1020
 cgctactaca aagaatctga ggatcctaag cacttcaagt cagagaagac aggacgggga
 1080
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 1140
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 1200
 gtccgagaca ttctgctgat tggacataga caggcttttg catgggttga tgagtgggtat
 1260
 gacatgacaa tggatgaagt ccgagaattt gaacgagcca ctcaggaagc caccaacaag
 1320
 aaaatcggca ttttcccacc tgcaatttct atctccagca tccccctgct gccttcttcc
 1380
 gtccgcagtg cgccttctag tgtcccatcc acccctctct ccacagacgc acccgaattt
 1440
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 1500
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 1560
 cggcccaaat ctgagtaact ttatataaat atctcatggg gttttatatt ttcatttgtt
 1620
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 1680
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 1724

<210> 5952

<211> 378

<212> PRT

<213> Homo sapiens

<400> 5952

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Gly	Arg	Pro	Ala	Leu	Arg	Leu	Gly	Ser	Ser	Leu	Ala	Gly	Leu	Gly	Gly
		20					25					30			
Ala	Pro	Arg	Phe	Pro	Pro	Gly	Gly	Phe	Ala	Ala	Gly	Arg	Thr	Met	Leu
	35					40					45				
Leu	Lys	Glu	Tyr	Arg	Ile	Cys	Met	Pro	Leu	Thr	Val	Asp	Glu	Tyr	Lys
50					55				60						
Ile	Gly	Gln	Leu	Tyr	Met	Ile	Ser	Lys	His	Ser	His	Glu	Gln	Ser	Asp
65				70				75				80			
Arg	Gly	Glu	Gly	Val	Glu	Val	Val	Gln	Asn	Glu	Pro	Phe	Glu	Asp	Pro
				85				90				95			
His	His	Gly	Asn	Gly	Gln	Phe	Thr	Glu	Lys	Arg	Val	Tyr	Leu	Asn	Ser

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      100      105      110
Lys Leu Pro Ser Trp Ala Arg Ala Val Val Pro Lys Ile Phe Tyr Val
      115      120      125
Thr Glu Lys Ala Trp Asn Tyr Tyr Pro Tyr Thr Ile Thr Glu Tyr Thr
      130      135      140
Cys Ser Phe Leu Pro Lys Phe Ser Ile His Ile Glu Thr Lys Tyr Glu
145      150      155      160
Asp Asn Lys Gly Ser Asn Asp Thr Ile Phe Asp Asn Glu Ala Lys Asp
      165      170      175
Val Glu Arg Glu Val Cys Phe Ile Asp Ile Ala Cys Asp Glu Ile Pro
      180      185      190
Glu Arg Tyr Tyr Lys Glu Ser Glu Asp Pro Lys His Phe Lys Ser Glu
      195      200      205
Lys Thr Gly Arg Gly Gln Leu Arg Glu Gly Trp Arg Asp Ser His Gln
      210      215      220
Pro Ile Met Cys Ser Tyr Lys Leu Val Thr Val Lys Phe Glu Val Trp
225      230      235      240
Gly Leu Gln Thr Arg Val Glu Gln Phe Val His Lys Val Val Arg Asp
      245      250      255
Ile Leu Leu Ile Gly His Arg Gln Ala Phe Ala Trp Val Asp Glu Trp
      260      265      270
Tyr Asp Met Thr Met Asp Glu Val Arg Glu Phe Glu Arg Ala Thr Gln
      275      280      285
Glu Ala Thr Asn Lys Lys Ile Gly Ile Phe Pro Pro Ala Ile Ser Ile
      290      295      300
Ser Ser Ile Pro Leu Leu Pro Ser Ser Val Arg Ser Ala Pro Ser Ser
305      310      315      320
Ala Pro Ser Thr Pro Leu Ser Thr Asp Ala Pro Glu Phe Leu Ser Val
      325      330      335
Pro Lys Asp Arg Pro Arg Lys Lys Ser Ala Pro Glu Thr Leu Thr Leu
      340      345      350
Pro Asp Pro Glu Lys Lys Ala Thr Leu Asn Leu Pro Gly Met His Ser
      355      360      365
Ser Asp Lys Pro Cys Arg Pro Lys Ser Glu
      370      375

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<210> 5953

<211> 777

<212> DNA

<213> Homo sapiens

<400> 5953

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120
cgggacaggc tcctaaacag gtaccgccag ctgngaagca gtgggccagg gaattctcag
180
aacagctttc tagttcaaga ggtgatggaa gaagagtgga atgctttgca gtcagtggag
240
aattgtccag aagacttggc tcagctggag gagctgatag acatggctgt gctggaggaa
300
attcaacagg agctgatcaa ccaagagcag tccatcatca gcgagtatga gaagagcttg
360

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cagtttgatg aaaagtgtct cagcatcatg ctggctgagt gggaggcaaa cccactcatc
 420
 tgtcctgtat gtacaaagcc tgtgatactt gggctgtgat cctctagagc cagcttggac
 480
 tcacatcatt ctatgggggtt gaagacaact cattccctct gaggagcctt gtacatacaa
 540
 gccttttatt tataacttat tttgtattga aactttttaa caatactgaa gaaaaaaaaa
 600
 cttttccgac atctgttctt ggtcttttgt gacgcagggtt gaagggggag gaatagaaaa
 660
 agacaaaactg ccttggagga gataaaccaa ttttatgtct atcatgttat acaaaaatct
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<210> 5954

<211> 152

<212> PRT

<213> Homo sapiens

<400> 5954

Phe Arg His Glu Ala Arg Ser Arg Lys Arg Ser Pro Arg Arg Ser Leu
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 20 25 30
 Cys Leu Glu Arg Met Arg Asn Ser Arg Asp Arg Leu Leu Asn Arg Tyr
 35 40 45
 Arg Gln Leu Xaa Ser Ser Gly Pro Gly Asn Ser Gln Asn Ser Phe Leu
 50 55 60
 Val Gln Glu Val Met Glu Glu Glu Trp Asn Ala Leu Gln Ser Val Glu
 65 70 75 80
 Asn Cys Pro Glu Asp Leu Ala Gln Leu Glu Glu Leu Ile Asp Met Ala
 85 90 95
 Val Leu Glu Glu Ile Gln Gln Glu Leu Ile Asn Gln Glu Gln Ser Ile
 100 105 110
 Ile Ser Glu Tyr Glu Lys Ser Leu Gln Phe Asp Glu Lys Cys Leu Ser
 115 120 125
 Ile Met Leu Ala Glu Trp Glu Ala Asn Pro Leu Ile Cys Pro Val Cys
 130 135 140
 Thr Lys Pro Val Ile Leu Gly Leu
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<210> 5955

<211> 1459

<212> DNA

<213> Homo sapiens

<400> 5955

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 120
 gctcagcctg tgatctgtat ccactcagca tgcacttggg cagatgattt gtctgtgtgc
 180

tacccttccc cccatattac catacatatg cacggcggga ccagcagcga cggtagcage
 240
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 300
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 360
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 420
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 480
 caggaggacg cggggaggat cctgatcgag gagctgaggg accgatttcc ctacctgagt
 540
 gaaagctact taatcaccac cgatgccgcc ggctccatcg ccacagctac accggatggg
 600
 ggagttgtgc tcatatctgg aacaggctcc aactgcaggc tcatcaaccc tgatggctcc
 660
 gagagtggct gcggcggctg gggccatatg atgggtgatg aggggttcagc cctctctgct
 720
 ccctcagcct actggatcgc acaccaagca gtgaaaatag tgtttgactc cattgacaac
 780
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 1020
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 aagagctggg agctgctgaa ggaagggttt cttttggcgc tgaccagggg cagagagatc
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 1200
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 1260
 aatgccattg ccttctatcc ctacaccttt tcttaggggg ctggtcccgg ctccaccccc
 1320
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<210> 5956

<211> 431

<212> PRT

<213> Homo sapiens

<400> 5956

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20 25 30
 Arg Phe Lys Ala Leu Pro Pro Gly Ala Gln Pro Val Ile Cys Ile His
 35 40 45
 Ser Ala Cys Thr Trp Ala Asp Asp Leu Ser Val Cys Tyr Pro Ser Pro
 50 55 60
 His Ile Thr Ile His Met His Gly Gly Thr Ser Ser Asp Gly Ser Ser
 65 70 75 80
 Ser Met Ala Ala Ile Tyr Gly Gly Val Glu Gly Gly Gly Thr Arg Ser
 85 90 95
 Glu Val Leu Leu Val Ser Glu Asp Gly Lys Ile Leu Ala Glu Ala Asp
 100 105 110
 Gly Leu Ser Thr Asn His Trp Leu Ile Gly Thr Asp Lys Cys Val Glu
 115 120 125
 Arg Ile Asn Glu Met Val Asn Arg Ala Lys Arg Lys Ala Gly Val Asp
 130 135 140
 Pro Leu Val Pro Leu Arg Ser Leu Gly Leu Ser Leu Ser Gly Gly Asp
 145 150 155 160
 Gln Glu Asp Ala Gly Arg Ile Leu Ile Glu Glu Leu Arg Asp Arg Phe
 165 170 175
 Pro Tyr Leu Ser Glu Ser Tyr Leu Ile Thr Thr Asp Ala Ala Gly Ser
 180 185 190
 Ile Ala Thr Ala Thr Pro Asp Gly Gly Val Val Leu Ile Ser Gly Thr
 195 200 205
 Gly Ser Asn Cys Arg Leu Ile Asn Pro Asp Gly Ser Glu Ser Gly Cys
 210 215 220
 Gly Gly Trp Gly His Met Met Gly Asp Glu Gly Ser Ala Leu Ser Ala
 225 230 235 240
 Pro Ser Ala Tyr Trp Ile Ala His Gln Ala Val Lys Ile Val Phe Asp
 245 250 255
 Ser Ile Asp Asn Leu Glu Ala Ala Pro His Asp Ile Gly Tyr Val Lys
 260 265 270
 Gln Ala Met Phe His Tyr Phe Gln Val Pro Asp Arg Leu Gly Ile Leu
 275 280 285
 Thr His Leu Tyr Arg Asp Phe Asp Lys Cys Arg Phe Ala Gly Phe Cys
 290 295 300
 Arg Lys Ile Ala Glu Gly Ala Gln Gln Gly Asp Pro Leu Ser Arg Tyr
 305 310 315 320
 Ile Phe Arg Lys Ala Gly Glu Met Leu Gly Arg His Ile Val Ala Val
 325 330 335
 Leu Pro Glu Ile Asp Pro Val Leu Phe Gln Gly Lys Ile Gly Leu Pro
 340 345 350
 Ile Leu Cys Val Gly Ser Val Trp Lys Ser Trp Glu Leu Lys Glu
 355 360 365
 Gly Phe Leu Leu Ala Leu Thr Gln Gly Arg Glu Ile Gln Ala Gln Asn
 370 375 380
 Phe Phe Ser Ser Phe Thr Leu Met Lys Leu Arg His Ser Ser Ala Leu
 385 390 395 400
 Gly Gly Ala Ser Leu Gly Ala Arg His Ile Gly His Leu Leu Pro Met
 405 410 415
 Asp Tyr Ser Ala Asn Ala Ile Ala Phe Tyr Ser Tyr Thr Phe Ser
 420 425 430

<210> 5957

<211> 855

<212> DNA

<213> Homo sapiens

<400> 5957

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 120
 ctaaacaggt accgccaggc tggaagcagt gggccaggga attctcagaa cagctttcta
 180
 gttcaagagg tgatggaaga agagtggaat gctttgcagt cagtggagaa ttgtccagaa
 240
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 300
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 360
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 420
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 480
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 540
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 600
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 660
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 720
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<210> 5958

<211> 106

<212> PRT

<213> Homo sapiens

<400> 5958

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Gly	Ser	Pro	Pro	Trp	Lys	Glu	Ala	Phe	Arg	Gln	Arg	Cys	Leu	Glu	Arg
		20					25					30			
Met	Arg	Asn	Ser	Arg	Asp	Arg	Leu	Leu	Asn	Arg	Tyr	Arg	Gln	Ala	Gly
		35				40					45				
Ser	Ser	Gly	Pro	Gly	Asn	Ser	Gln	Asn	Ser	Phe	Leu	Val	Gln	Glu	Val
	50				55					60					
Met	Glu	Glu	Glu	Trp	Asn	Ala	Leu	Gln	Ser	Val	Glu	Asn	Cys	Pro	Glu
65				70				75					80		
Asp	Leu	Ala	Gln	Leu	Glu	Glu	Leu	Ile	Asp	Met	Ala	Val	Leu	Glu	Glu
			85				90						95		
Ile	Gln	Gln	Glu	Leu	Ile	Asn	Gln	Gly	Leu						

100

105

<210> 5959
 <211> 830
 <212> DNA
 <213> Homo sapiens

<400> 5959
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 120
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 240
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 360
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 480
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 540
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 600
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 660
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 720
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 780
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 830

<210> 5960
 <211> 251
 <212> PRT
 <213> Homo sapiens

<400> 5960
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 Glu Arg Glu Leu His Ser Val His Gly Tyr Pro Gly Thr Phe Ala Asn
 35 40 45
 Cys Met His Ile Leu Ser Glu Glu Thr Cys Phe Gln Arg Trp Val Thr
 50 55 60
 Gly Glu Arg Lys Phe Ala Leu Gln Lys Met Asp Ser Met Leu Ser Ser
 65 70 75 80
 Glu Ala Ala Trp Val Ser Gln Tyr Lys Asp Ile Thr Asp Val Asp Glu

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<210> 5962
<211> 114
<212> PRT
<213> Homo sapiens
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<400> 5962

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 20           25           30
Leu Ser His Ser His Gln Pro Gly Leu Ser Gly Glu Gly Ala Gln Glu
 35           40           45
Gln Ala Arg Ile Asp Thr Gly Ile His Met Lys Arg Met Gln Thr Pro
 50           55           60
Arg His Pro Ala Leu Ser Gln Ser Leu Ile Lys Phe Gly Ile Leu Phe
 65           70           75           80
Asp Pro Ser Ile Phe Phe Leu Glu Thr Gly Ser Arg Phe Ile Ala Gln
 85           90           95
Ala Glu Cys Ser Gly Tyr Ser Gln Ala Pro Leu Glu Arg Thr Ala Ala
100           105           110
Pro Ser

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<210> 5963

<211> 1288

<212> DNA

<213> Homo sapiens

<400> 5963

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120
gaagaaaaag tgaaacgatc tgtgaaagat gctgccaaga agggccagaa ggatgtctgc
180
atagttcttg ccaaggagat gatcagggtca aggaaggctg tgagcaagct gtatgcatcc
240
aaagcacaca tgaactcagt gctcatgggg atgaagaacc agctcgcggt cttgcgagtg
300
gctggttccc tgcagaagag cacagaagtg atgaaggcca tgcaaagtct tgtgaagatt
360
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<210> 5964
<211> 222
<212> PRT
<213> Homo sapiens

<400> 5964
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Gln Ile Arg Asp Ile Gln Arg Glu Glu Glu Lys Val Lys Arg Ser Val
35 40 45
Lys Asp Ala Ala Lys Lys Gly Gln Lys Asp Val Cys Ile Val Leu Ala
50 55 60
Lys Glu Met Ile Arg Ser Arg Lys Ala Val Ser Lys Leu Tyr Ala Ser
65 70 75 80
Lys Ala His Met Asn Ser Val Leu Met Gly Met Lys Asn Gln Leu Ala
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Val Leu Arg Val Ala Gly Ser Leu Gln Lys Ser Thr Glu Val Met Lys
100 105 110
Ala Met Gln Ser Leu Val Lys Ile Pro Glu Ile Gln Ala Thr Met Arg
115 120 125
Glu Leu Ser Lys Glu Met Met Lys Ala Gly Ile Ile Glu Glu Met Leu
130 135 140
Glu Asp Thr Phe Glu Ser Met Asp Asp Gln Glu Glu Met Glu Glu Glu
145 150 155 160
Ala Glu Met Glu Ile Asp Arg Ile Leu Phe Glu Ile Thr Ala Gly Ala
165 170 175
Leu Gly Lys Ala Pro Ser Lys Val Thr Asp Ala Leu Pro Glu Pro Glu
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Pro Pro Gly Ala Met Ala Ala Ser Glu Asp Glu Glu Glu Glu Glu
195 200 205
Ala Leu Glu Ala Met Gln Ser Arg Leu Ala Thr Leu Arg Ser
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<210> 5965
<211> 1011
<212> DNA
<213> Homo sapiens

<400> 5965
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 840
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 900
 aactgccttg gaggagataa accaatttta tgtctatcat gttatacaaa aatctagaaa
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 1011

<210> 5966
 <211> 233
 <212> PRT
 <213> Homo sapiens

<400> 5966
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 Pro Trp Lys Glu Ala Phe Arg Gln Arg Cys Leu Glu Arg Met Arg Asn
 35 40 45
 Ser Arg Asp Arg Leu Leu Asn Arg Tyr Arg Gln Ala Gly Ser Ser Gly
 50 55 60
 Pro Gly Asn Ser Gln Asn Ser Phe Leu Val Gln Glu Val Met Glu Glu
 65 70 75 80
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<210> 5967
<211> 1806
<212> DNA
<213> Homo sapiens
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tgtgcttttg ttgctaggca gtcaacagca gggctactaa agcacttcta atttagacaa
180
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240
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300
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720
gccttgagaa taaatgagac gagacaccaa tgtcttggtg tacatcaaaa gaaggctagc
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aatgtgtgcc agaagactcg ggaggaccag ggaagcaaag cccttctgga actacaagca
840

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 1080
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 1140
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 1200
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 1320
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 1500
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 1680
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 1806

<210> 5968

<211> 434

<212> PRT

<213> Homo sapiens

<400> 5968

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			20					25					30		
Gly	Thr	Ser	Ser	Leu	Ile	Ser	Gly	Leu	Ile	Leu	Ile	Phe	Glu	Trp	Trp
		35				40					45				
Tyr	Phe	Arg	Lys	Tyr	Gly	Thr	Ser	Phe	Ile	Glu	Gln	Val	Ser	Val	Ser
	50				55					60					
His	Leu	Arg	Pro	Leu	Leu	Gly	Gly	Val	Asp	Asn	Asn	Ser	Ser	Asn	Asn
65				70					75					80	
Ser	Asn	Ser	Ser	Asn	Gly	Asp	Ser	Asp	Ser	Asn	Arg	Gln	Ser	Val	Ser
			85					90						95	
Glu	Cys	Lys	Val	Trp	Arg	Asn	Pro	Leu	Asn	Leu	Phe	Arg	Gly	Ala	Glu

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Tyr Asn Arg Tyr Thr Trp Val Thr Gly Arg Glu Pro Leu Thr Tyr Tyr
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      130      135      140
Ser Asp His Leu Arg Pro Ala Asp Ala Ile Met Gln Lys Ala Trp Arg
      145      150      155
Glu Arg Asn Pro Gln Ala Arg Ile Ser Ala Ala His Glu Ala Leu Glu
      165      170      175
Ile Asn Glu Thr Arg His Gln Cys Leu Gly Val His Gln Lys Lys Ala
      180      185      190
Ser Asn Val Cys Gln Lys Thr Arg Glu Asp Gln Gly Ser Lys Ala Leu
      195      200      205
Leu Glu Leu Gln Ala Tyr Ala Asp Val Gln Ala Val Leu Ala Lys Tyr
      210      215      220
Asp Asp Ile Ser Leu Pro Lys Ser Ala Thr Ile Cys Tyr Thr Ala Ala
      225      230      235
Leu Leu Lys Ala Arg Ala Val Ser Asp Lys Phe Ser Pro Glu Ala Ala
      245      250      255
Ser Arg Arg Gly Leu Ser Thr Ala Glu Met Asn Ala Val Glu Ala Ile
      260      265      270
His Arg Ala Val Glu Phe Asn Pro His Val Pro Lys Tyr Leu Leu Glu
      275      280      285
Met Lys Ser Leu Ile Leu Pro Pro Glu His Ile Leu Lys Arg Gly Asp
      290      295      300
Ser Glu Ala Ile Ala Tyr Ala Phe Phe His Leu Ala His Trp Lys Arg
      305      310      315
Val Glu Gly Ala Leu Asn Leu Leu His Cys Thr Trp Glu Gly Thr Phe
      325      330      335
Arg Met Ile Pro Tyr Pro Leu Glu Lys Gly His Leu Phe Tyr Pro Tyr
      340      345      350
Pro Ile Cys Thr Glu Thr Ala Asp Arg Glu Leu Leu Pro Ser Phe His
      355      360      365
Glu Val Ser Val Tyr Pro Lys Lys Glu Leu Pro Phe Phe Ile Leu Phe
      370      375      380
Thr Ala Gly Leu Cys Ser Phe Thr Ala Met Leu Ala Leu Leu Thr His
      385      390      395
Gln Phe Pro Glu Leu Met Gly Val Phe Ala Lys Ala Val Ser Val Cys
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Leu Glu Gly Gly Leu Gly Glu Trp Met Gly Lys Ala Lys Gly Ile Lys
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<210> 5969

<211> 429

<212> DNA

<213> Homo sapiens

<400> 5969

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120

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<210> 5970

<211> 143

<212> PRT

<213> Homo sapiens

<400> 5970

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 20 25 30
 Gly Val Leu Ala Ser Gln Ala Met Ile Glu Lys Ile Leu Ser Glu Asp
 35 40 45
 Pro Arg Trp Gln Asp Ala Asn Phe Val Leu Gly Ser Tyr Lys Thr Glu
 50 55 60
 Gln Cys Pro Lys Pro Pro Arg Leu Cys Arg Gln Gly Tyr Ala Cys Pro
 65 70 75 80
 His Tyr His Asn Ser Arg Asp Arg Arg Asn Pro Arg Arg Phe Gln
 85 90 95
 Tyr Arg Ser Thr Pro Cys Pro Ser Val Lys His Gly Asp Glu Trp Gly
 100 105 110
 Glu Pro Ser Arg Cys Asp Gly Gly Asp Gly Cys Gln Tyr Cys His Ser
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 Arg Thr Glu Gln Gln Phe His Pro Glu Ile Tyr Lys Ser Thr Lys
 130 135 140

<210> 5971

<211> 565

<212> DNA

<213> Homo sapiens

<400> 5971

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 tagatgggtca tccccatttt agagatagct cccttttata tccccatttt acaggtgaag
 240
 gaattgaggc acagaagggt aggtcacttc tgcaagatga ccagctgaac caaaatttca
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 420
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 565

<210> 5972
 <211> 104
 <212> PRT
 <213> Homo sapiens

<400> 5972
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 35 40 45
 Ala Gln Lys Val Arg Ser Leu Leu Gln Asp Asp Gln Leu Asn Gln Asn
 50 55 60
 Phe Arg Ala Ser Asn Thr Lys Cys Val Pro Leu Ser Ser Val Ser His
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<210> 5973
 <211> 797
 <212> DNA
 <213> Homo sapiens

<400> 5973
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 797

<210> 5974
 <211> 107
 <212> PRT
 <213> Homo sapiens

<400> 5974
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 His Pro Gly Pro Ser Leu Thr Ser Gly Ala Leu Thr His Ile Arg Asp
 35 40 45
 Pro His Pro Gly Leu Ser Pro Thr Ser Gly Thr Leu Met Pro Gly Arg
 50 55 60
 Arg Arg Gly Gly Pro Ser Phe Gly Thr Pro Ala Leu Arg Arg Arg Lys
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 Cys His Arg Glu Ala Pro Ala Ser Gly Leu Ser Thr Ala Ala Arg Glu
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 Arg Leu Trp Trp Pro Arg Ala Arg Val Cys Arg
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<210> 5975
 <211> 2175
 <212> DNA
 <213> Homo sapiens

<400> 5975
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 2160
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<210> 5976
 <211> 564
 <212> PRT
 <213> Homo sapiens

<400> 5976
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 35 40 45
 Pro Glu Val Ile Lys Asn Phe Ile Gln Tyr Phe His Lys Thr Val Ser
 50 55 60
 Asp Leu Ile Asp Gln Lys Val Tyr Glu Leu Gln Ala Ser Arg Val Ser
 65 70 75 80
 Ser Asp Val Ile Asp Gln Lys Val Tyr Glu Ile Gln Asp Ile Tyr Glu
 85 90 95
 Asn Ser Trp Thr Lys Leu Thr Glu Arg Phe Phe Lys Asn Thr Pro Trp
 100 105 110
 Pro Glu Ala Glu Ala Ile Ala Pro Gln Val Gly Asn Asp Ala Val Phe
 115 120 125
 Leu Ile Leu Tyr Lys Glu Leu Tyr Tyr Arg His Ile Tyr Ala Lys Val
 130 135 140
 Ser Gly Gly Pro Ser Leu Glu Gln Arg Phe Glu Ser Tyr Tyr Asn Tyr
 145 150 155 160
 Cys Asn Leu Phe Asn Tyr Ile Leu Asn Ala Asp Gly Pro Ala Pro Leu
 165 170 175
 Glu Leu Pro Asn Gln Trp Leu Trp Asp Ile Ile Asp Glu Phe Ile Tyr
 180 185 190
 Gln Phe Gln Ser Phe Ser Gln Tyr Arg Cys Lys Thr Ala Lys Lys Ser
 195 200 205
 Glu Glu Glu Ile Asp Phe Leu Arg Ser Asn Pro Lys Ile Trp Asn Val
 210 215 220
 His Ser Val Leu Asn Val Leu His Ser Leu Val Asp Lys Ser Asn Ile
 225 230 235 240
 Asn Arg Gln Leu Glu Val Tyr Thr Ser Gly Gly Asp Pro Glu Ser Val
 245 250 255
 Ala Gly Glu Tyr Gly Arg His Ser Leu Tyr Lys Met Leu Gly Tyr Phe
 260 265 270
 Ser Leu Val Gly Leu Leu Arg Leu His Ser Leu Leu Gly Asp Tyr Tyr
 275 280 285
 Gln Ala Ile Lys Val Leu Glu Asn Ile Glu Leu Asn Lys Lys Ser Met
 290 295 300
 Tyr Ser Arg Val Pro Glu Cys Gln Val Thr Thr Tyr Tyr Tyr Val Gly
 305 310 315 320
 Phe Ala Tyr Leu Met Met Arg Arg Tyr Gln Asp Ala Ile Arg Val Phe

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Ala Asn Ile Leu Leu Tyr Ile Gln Arg Thr Lys Ser Met Phe Gln Arg					
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Thr Thr Tyr Lys Tyr Glu Met Ile Asn Lys Gln Asn Glu Gln Met His					
	355		360		365
Ala Leu Leu Ala Ile Ala Leu Thr Met Tyr Pro Met Arg Ile Asp Glu					
	370		375		380
Ser Ile His Leu Gln Leu Arg Glu Lys Tyr Gly Asp Lys Met Leu Arg					
385		390		395	400
Met Gln Lys Gly Asp Pro Gln Val Tyr Glu Glu Leu Phe Ser Tyr Ser					
	405		410		415
Cys Pro Lys Phe Leu Ser Pro Val Val Pro Asn Tyr Asp Asn Val His					
	420		425		430
Pro Asn Tyr His Lys Glu Pro Phe Leu Gln Gln Leu Lys Val Phe Ser					
	435		440		445
Asp Glu Val Gln Gln Gln Ala Gln Leu Ser Thr Ile Arg Ser Phe Leu					
	450		455		460
Lys Leu Tyr Thr Thr Met Pro Val Ala Lys Leu Ala Gly Phe Leu Asp					
465		470		475	480
Leu Thr Glu Gln Glu Phe Arg Ile Gln Leu Leu Val Phe Lys His Lys					
	485		490		495
Met Lys Asn Leu Val Trp Thr Ser Gly Ile Ser Ala Leu Asp Gly Glu					
	500		505		510
Phe Gln Ser Ala Ser Glu Val Asp Phe Tyr Ile Asp Lys Asp Met Ile					
	515		520		525
His Ile Ala Asp Thr Lys Val Ala Arg Arg Tyr Gly Asp Phe Phe Ile					
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Arg Gln Ile His Lys Phe Glu Glu Leu Asn Arg Thr Leu Lys Lys Met					
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Gly Gln Arg Pro					

<210> 5977

<211> 2320

<212> DNA

<213> Homo sapiens

<400> 5977

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120

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180

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240

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300

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360

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420

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480

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<210> 5978

<211> 77

<212> PRT

<213> Homo sapiens

<400> 5978

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		20						25					30		
Gly	Arg	Gly	Gly	Gln	Ile	Ile	Xaa	Ala	Arg	Ser	Ser	Arg	Pro	Ala	Trp
		35					40					45			
Thr	Thr	Trp	Arg	Xaa	Val	Phe	Thr	Lys	Asn	Thr	Lys	Ile	Ser	Trp	Ala
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Trp	Trp	Tyr	Thr	Pro	Val	Ile	Pro	Ala	Thr	Gln	Glu	Ala			
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<210> 5979

<211> 1095

<212> DNA

<213> Homo sapiens

<400> 5979

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 240
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1095

<210> 5980
<211> 169
<212> PRT
<213> Homo sapiens

<400> 5980
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Ser Gly Gln Glu Asp Tyr Asp Arg Leu Arg Pro Leu Ser Tyr Gln Asn
35 40 45
Thr His Leu Val Leu Ile Cys Tyr Asp Val Met Asn Pro Thr Ser Tyr
50 55 60
Asp Asn Val Leu Ile Lys Trp Phe Pro Glu Val Thr His Phe Cys Arg
65 70 75 80
Gly Ile Pro Met Val Leu Ile Gly Cys Lys Thr Asp Leu Arg Lys Asp
85 90 95
Lys Glu Gln Leu Arg Lys Leu Arg Ala Ala Gln Leu Glu Pro Ile Thr
100 105 110
Tyr Met Gln Gly Leu Ser Ala Cys Glu Gln Ile Arg Ala Ala Leu Tyr
115 120 125
Leu Glu Cys Ser Ala Lys Phe Arg Glu Asn Val Glu Asp Val Phe Arg
130 135 140
Glu Ala Ala Lys Val Ala Leu Ser Ala Leu Lys Lys Ala Gln Arg Gln
145 150 155 160
Lys Lys Arg Arg Leu Cys Leu Leu Leu
165

<210> 5981
<211> 677
<212> DNA
<213> Homo sapiens

<400> 5981
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<210> 5982

<211> 98

<212> PRT

<213> Homo sapiens

<400> 5982

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Arg	Ile	Pro	Lys	Ser	Asp	Asp	Gly	Thr	Arg	Thr	Gly	Arg	Asn	Asp	Ser
			20					25					30		
Pro	Arg	Ala	Pro	Leu	Pro	Arg	Ser	Ser	Ala	Arg	Arg	Pro	Ser	Lys	Ala
		35					40					45			
Asn	Leu	His	Thr	Leu	Gly	Gln	Leu	Lys	Leu	Ser	Arg	Arg	Cys	Arg	Glu
	50					55				60					
Pro	Arg	Leu	Gly	Arg	Ala	Gly	Gln	Gln	Arg	Leu	His	Pro	Arg	Thr	Arg
65					70					75				80	
Pro	Arg	Arg	Gly	Ser	Gly	Pro	Leu	Val	Arg	Ala	Gly	Arg	Arg	Gly	Trp
			85						90					95	

Gly Lys

<210> 5983

<211> 790

<212> DNA

<213> Homo sapiens

<400> 5983

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cattgttttc cttaaattac tggtaaattt tgaaataaac agtcccaaga tgtgattatt
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<210> 5984
 <211> 186
 <212> PRT
 <213> Homo sapiens

<400> 5984
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 Leu Gln Glu Ile Lys Thr Ile Gly Tyr Thr Ser Pro Arg Ser Arg Thr
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 Glu Val Asn Arg Gln Cys Pro Gly Glu Lys Glu Pro Val Ser Asp Leu
 35 40 45
 Gln Leu Gly Leu Asp Ala Val Glu Pro Thr Ala Leu His Lys Thr Leu
 50 55 60
 Glu Thr Pro Ala His Asp Arg Ala Glu Pro Asn Ser Gln Leu Asp Ser
 65 70 75 80
 Thr His Ser Gly Arg Gly Thr Met Tyr Ser Ser Trp Val Lys Ser Pro
 85 90 95
 Asp Arg Thr Gly Val Asn Phe Ser Val Asn Ser Asn Leu Arg Asp Leu
 100 105 110
 Thr Pro Ser His Gln Leu Glu Val Gly Gly Gly Phe Arg Ile Ser Glu
 115 120 125
 Ser Lys Cys Leu Met Gln Asp Asp Thr Arg Gly Met Phe Met Glu Thr
 130 135 140
 Thr Val Phe Cys Thr Ser Glu Asp Gly Leu Val Ser Gly Phe Gly Arg
 145 150 155 160
 Thr Val Asn Asp Asn Leu Ile Asp Gly Asn Cys Thr Pro Gln Asn Pro
 165 170 175
 Pro Gln Lys Lys Lys Val Ser Leu Leu Glu

180

185

<210> 5985
 <211> 737
 <212> DNA
 <213> Homo sapiens

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<210> 5986
 <211> 165
 <212> PRT
 <213> Homo sapiens

<400> 5986
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 20 25 30
 Asp Leu Leu Gln Asn Pro Tyr Phe Ser Lys Leu Leu Leu Asn Leu Ser
 35 40 45
 Gln His Val Asp Glu Ser Gly Leu Ser Leu Thr Leu Ala Lys Glu Gln
 50 55 60
 Ala Gln Ala Trp Lys Glu Val Arg Leu His Lys Thr Thr Trp Leu Arg
 65 70 75 80
 Ser Glu Ile Leu His Arg Val Ile Gln Glu Leu Leu Val Asp Tyr Tyr
 85 90 95
 Val Lys Ile Gln Asp Thr Asn Val Thr Ser Glu Asp Lys Lys Phe His

	100		105		110
Glu Thr Leu	Glu Gln Arg Leu Leu Val Thr Glu Leu Met Arg Leu Leu				
	115		120		125
Gly Pro Ser Gln Glu Arg Glu Ile Pro Pro Leu Leu Gly Leu Glu Lys					
	130		135		140
Ala Asp Leu Leu Glu Leu Met Pro Leu Ser Glu Val Gly Gly Glu Ile					
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Leu Glu Pro Asn Lys					
	165				

<210> 5987

<211> 1444

<212> DNA

<213> Homo sapiens

<400> 5987

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1140

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<210> 5988
 <211> 216
 <212> PRT
 <213> Homo sapiens

<400> 5988
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 35 40 45
 Trp Ile Lys Ala Arg Ser Gly Asp Asn Pro Val Tyr Ile Trp Gly His
 50 55 60
 Ser Leu Gly Thr Gly Val Ala Thr Ile Trp Cys Gly Ala Ser Val Ser
 65 70 75 80
 Glu Thr Pro Pro Asp Ala Leu Ile Leu Glu Ser Pro Phe Thr Asn Ile
 85 90 95
 Arg Glu Glu Ala Lys Ser His Pro Phe Ser Val Ile Tyr Arg Tyr Phe
 100 105 110
 Pro Gly Phe Asp Trp Phe Phe Leu Asp Pro Ile Thr Ser Ser Gly Ile
 115 120 125
 Lys Phe Ala Asn Asp Glu Asn Val Lys His Ile Ser Cys Pro Leu Leu
 130 135 140
 Ile Leu His Ala Glu Asp Asp Pro Val Val Pro Phe Gln Leu Gly Arg
 145 150 155 160
 Lys Leu Tyr Ser Ile Ala Ala Pro Ala Arg Ser Phe Arg Asp Phe Lys
 165 170 175
 Val Gln Phe Val Pro Phe His Ser Asp Leu Gly Tyr Arg His Lys Tyr
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 195 200 205
 Lys Ser Glu Pro Glu His Gln His
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<210> 5989
 <211> 1583
 <212> DNA
 <213> Homo sapiens

<400> 5989

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<210> 5990
 <211> 260
 <212> PRT
 <213> Homo sapiens

<400> 5990
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Ser Cys Ser Pro Lys Asp Ile Gly Met Ser Leu Cys Cys His Val Leu		350
	355	360
Ser Leu Leu Gln Ala Gln Arg Gly Ser Gly Arg Arg Gln Gly Leu Leu		365
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Cys Thr Arg Glu Thr Arg Ser Trp Gly Ser Ala Cys Val Ser Leu Leu		380
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<210> 5995

<211> 1528

<212> DNA

<213> Homo sapiens

<400> 5995

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<210> 5996
 <211> 140
 <212> PRT
 <213> Homo sapiens

<400> 5996
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 Arg Gln Phe Val Pro Leu Ala Ser Gly Gln Ala Gln Val Val Leu Ser
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 Ala Pro Phe Trp Ala His Ser Asp Pro Glu Glu Met Gln Trp Arg Asp
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 <213> Homo sapiens

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<210> 5998
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<400> 5998
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<210> 6000

<211> 757

<212> PRT

<213> Homo sapiens

<400> 6000

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Gln	Arg	Pro	Asp	Gln	Leu	Asp	Lys	Val	Glu	Gln	Tyr	Arg	Arg	Arg	Glu
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Ala	Arg	Lys	Lys	Ala	Ser	Val	Glu	Ala	Arg	Leu	Lys	Ala	Ala	Ile	Gln
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Ser	Gln	Leu	Asp	Gly	Val	Arg	Thr	Gly	Leu	Ser	Gln	Leu	His	Asn	Ala
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Leu	Asn	Asp	Val	Lys	Asp	Ile	Gln	Gln	Ser	Leu	Ala	Asp	Val	Ser	Lys
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Asp	Trp	Arg	Gln	Ser	Ile	Asn	Thr	Ile	Glu	Ser	Leu	Lys	Asp	Val	Lys
			100					105					110		
Asp	Ala	Val	Val	Gln	His	Ser	Gln	Leu	Ala	Ala	Ala	Val	Glu	Asn	Leu
		115					120						125		
Lys	Asn	Ile	Phe	Ser	Val	Pro	Glu	Ile	Val	Arg	Glu	Thr	Gln	Asp	Leu
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Ile	Glu	Gln	Gly	Ala	Leu	Leu	Gln	Ala	His	Arg	Lys	Leu	Met	Asp	Leu
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Glu	Cys	Ser	Arg	Asp	Gly	Leu	Met	Tyr	Glu	Gln	Tyr	Arg	Met	Asp	Ser
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Gly	Asn	Thr	Arg	Asp	Met	Thr	Leu	Ile	His	Gly	Tyr	Phe	Gly	Ser	Thr
			180					185					190		
Gln	Gly	Leu	Ser	Asp	Glu	Leu	Ala	Lys	Gln	Leu	Trp	Met	Val	Leu	Gln
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Arg	Ser	Leu	Val	Thr	Val	Arg	Arg	Asp	Pro	Thr	Leu	Leu	Val	Ser	Val
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Val	Arg	Ile	Ile	Glu	Arg	Glu	Glu	Lys	Ile	Asp	Arg	Arg	Ile	Leu	Asp
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Arg	Lys	Lys	Gln	Thr	Gly	Phe	Val	Pro	Pro	Gly	Arg	Pro	Lys	Asn	Trp
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Lys	Glu	Lys	Met	Phe	Thr	Ile	Leu	Glu	Arg	Thr	Val	Thr	Thr	Arg	Ile
			260					265					270		
Glu	Gly	Thr	Gln	Ala	Asp	Thr	Arg	Glu	Ser	Asp	Lys	Met	Trp	Leu	Val

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 Asp Leu Ala Ser Glu Asp Leu Glu Ala Asn Glu Ile Val Ser Leu Leu
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 370 375 380
 Pro His Val Val Ser Glu Leu Leu Asp Thr Tyr Met Ser Thr Leu Thr
 385 390 395 400
 Ser Asn Ile Ile Ala Trp Leu Arg Lys Ala Leu Glu Thr Asp Lys Lys
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 Asp Trp Val Lys Glu Thr Glu Pro Glu Ala Asp Gln Asp Gly Tyr Tyr
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 Gln Thr Thr Leu Pro Ala Ile Val Phe Gln Met Phe Glu Gln Asn Leu
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 465 470 475 480
 Ala Gln Leu Tyr Lys Glu Glu His Leu Arg Asn Arg Gln His Pro His
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 Cys Tyr Val Gln Tyr Met Ile Ala Ile Ile Asn Asn Cys Gln Thr Phe
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 Lys Glu Ser Ile Val Ser Leu Lys Arg Lys Tyr Leu Lys Asn Glu Val
 515 520 525
 Glu Glu Gly Val Ser Pro Ser Gln Pro Ser Met Asp Gly Ile Leu Asp
 530 535 540
 Ala Ile Ala Lys Glu Gly Cys Ser Gly Leu Leu Glu Glu Val Phe Leu
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 Asp Leu Glu Gln His Leu Asn Glu Leu Met Thr Lys Lys Trp Leu Leu
 565 570 575
 Gly Ser Asn Ala Val Asp Ile Ile Cys Val Thr Val Glu Asp Tyr Phe
 580 585 590
 Asn Asp Phe Ala Lys Ile Lys Lys Pro Tyr Lys Lys Arg Met Thr Ala
 595 600 605
 Glu Ala His Arg Arg Val Val Val Glu Tyr Leu Arg Ala Val Met Gln
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 Lys Arg Ile Ser Phe Arg Ser Pro Glu Glu Arg Lys Glu Gly Ala Glu
 625 630 635 640
 Lys Met Val Arg Glu Ala Glu Gln Arg Arg Phe Leu Phe Arg Lys Leu
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 Ala Ser Gly Phe Gly Glu Asp Val Asp Gly Tyr Cys Asp Thr Ile Val
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 Ala Val Ala Glu Val Ile Lys Leu Thr Asp Pro Ser Leu Leu Tyr Leu
 675 680 685
 Glu Val Ser Thr Leu Val Ser Lys Tyr Pro Asp Ile Arg Asp Asp His
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 Ile Gly Ala Leu Leu Ala Val Arg Gly Asp Ala Ser Arg Asp Met Lys

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Gln Thr Ile Met Glu Thr Leu Glu Gln Gly Pro Ala Gln Ala Ser Pro						
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 <212> DNA
 <213> Homo sapiens

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<210> 6002

<211> 263

<212> PRT

<213> Homo sapiens

<400> 6002

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 Trp Cys Tyr Val Ser Gly Glu Ala Gly Val Pro Glu Lys Arg Pro Cys
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 Glu Asp Leu Arg Cys Pro Glu Thr Thr Ser Gln Ala Leu Pro Ala Phe
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 Ser Tyr Lys Arg Gly Lys Asp Leu Lys Glu Gln His Asp Gln Lys Val
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 <211> 3107
 <212> DNA
 <213> Homo sapiens

<400> 6003
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<211> 140

<212> PRT

<213> Homo sapiens

<400> 6004

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			20					25					30		
Pro	Ala	Val	Pro	Lys	Val	Ala	Pro	Gly	Thr	Met	Pro	Thr	Arg	Pro	Glu
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Ser	Pro	Arg	Gly	Glu	Arg	Gly	Ser	Gly	Pro	His	Ala	Val	Gln	Gly	Val
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<210> 6005

<211> 1735

<212> DNA

<213> Homo sapiens

<400> 6005

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<210> 6006

<211> 200

<212> PRT

<213> Homo sapiens

<400> 6006

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Lys	Gly	Gln	Lys	Gly	Asp	Pro	Gly	Glu	Pro	Gly	Pro	Ala	Gly	Leu	Lys
			20					25					30		
Gly	Glu	Ala	Gly	Glu	Met	Gly	Leu	Ser	Gly	Leu	Pro	Gly	Ala	Asp	Gly
		35				40					45				
Leu	Lys	Gly	Glu	Lys	Gly	Glu	Ser	Ala	Ser	Gln	Pro	Thr	Gly	Glu	Pro
	50				55					60					
Gly	Ser	Ala	His	Ser	Glu	Pro	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Pro	Pro
65				70				75						80	
Gly	Pro	Met	Gly	Leu	Gln	Gly	Ile	Gln	Gly	Pro	Lys	Gly	Leu	Asp	Gly
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Ala	Lys	Gly	Glu	Lys	Gly	Ala	Ser	Gly	Glu	Arg	Gly	Ser	Ser	Gly	Leu
		100				105						110			
Pro	Gly	Pro	Val	Gly	Pro	Pro	Gly	Leu	Ile	Gly	Leu	Pro	Gly	Thr	Lys
	115				120						125				
Gly	Glu	Lys	Gly	Arg	Pro	Gly	Glu	Pro	Gly	Leu	Asp	Gly	Phe	Pro	Gly
	130				135					140					
Pro	Arg	Gly	Glu	Lys	Gly	Asp	Arg	Ser	Glu	Arg	Gly	Glu	Lys	Gly	Glu
145				150				155						160	
Arg	Gly	Val	Pro	Gly	Arg	Lys	Gly	Val	Lys	Gly	Gln	Lys	Gly	Glu	Pro
			165			170						175			
Gly	Pro	Pro	Gly	Leu	Asp	Gln	Pro	Cys	Pro	Val	Gly	Pro	Asp	Gly	Leu
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<210> 6007

<211> 693

<212> DNA

<213> Homo sapiens

<400> 6007

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<210> 6008

<211> 214

<212> PRT

<213> Homo sapiens

<400> 6008

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			20					25					30		
Gly	Lys	Met	Val	Lys	Lys	Val	Cys	Pro	Cys	Asn	Gln	Leu	Cys	Arg	Thr
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Ser	Ser	Thr	Asn	Thr	Val	Gly	Ala	Thr	Val	Asn	Ser	Gln	Ala	Ala	Gln
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Ala	Gln	Pro	Pro	Ala	Met	Thr	Ser	Ser	Arg	Lys	Gly	Thr	Phe	Thr	Asp
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Asp	Leu	His	Lys	Leu	Val	Asp	Asn	Trp	Ala	Arg	Asp	Ala	Met	Asn	Leu
				85				90						95	
Ser	Gly	Arg	Arg	Gly	Ser	Lys	Gly	His	Met	Asn	Tyr	Glu	Gly	Pro	Gly
			100				105						110		
Met	Ala	Arg	Lys	Phe	Ser	Ala	Pro	Gly	Gln	Leu	Cys	Ile	Ser	Met	Thr
		115					120				125				
Ser	Asn	Leu	Gly	Gly	Ser	Ala	Pro	Ile	Ser	Ala	Ala	Ser	Ala	Thr	Ser
		130				135					140				
Leu	Gly	His	Phe	Thr	Lys	Ser	Met	Cys	Pro	Pro	Gln	Gln	Tyr	Gly	Phe
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<211> 468

<212> PRT

<213> Homo sapiens

<400> 6010

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Asp	Thr	Val	Tyr	Asp	Val	Val	Val	Ser	Gly	Gly	Gly	Leu	Val	Gly	Ala
		35					40					45			
Ala	Met	Ala	Cys	Ala	Leu	Gly	Tyr	Asp	Ile	His	Phe	His	Asp	Lys	Lys
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Ile	Leu	Leu	Leu	Glu	Ala	Gly	Pro	Lys	Lys	Val	Leu	Glu	Lys	Leu	Ser
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Glu	Thr	Tyr	Ser	Asn	Arg	Val	Ser	Ser	Ile	Ser	Pro	Gly	Ser	Ala	Thr
				85					90					95	
Leu	Leu	Ser	Ser	Phe	Gly	Ala	Trp	Asp	His	Ile	Cys	Asn	Met	Arg	Tyr
			100					105					110		
Arg	Ala	Phe	Arg	Arg	Met	Gln	Val	Trp	Asp	Ala	Cys	Ser	Glu	Ala	Leu
		115				120						125			
Ile	Met	Phe	Asp	Lys	Asp	Asn	Leu	Asp	Asp	Met	Gly	Tyr	Ile	Val	Glu
	130					135					140				
Asn	Asp	Val	Ile	Met	His	Ala	Leu	Thr	Lys	Gln	Leu	Glu	Ala	Val	Ser
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Asp	Arg	Val	Thr	Val	Leu	Tyr	Arg	Ser	Lys	Ala	Ile	Arg	Tyr	Thr	Trp
			165						170					175	
Pro	Cys	Pro	Phe	Pro	Met	Ala	Asp	Ser	Ser	Pro	Trp	Val	His	Ile	Thr
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Leu	Gly	Asp	Gly	Ser	Thr	Phe	Gln	Thr	Lys	Leu	Leu	Ile	Gly	Ala	Asp
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			245						250					255	
Ile	Ala	Leu	Leu	Pro	Leu	Ser	Asp	Thr	Leu	Ser	Ser	Leu	Val	Trp	Ser

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 Leu Lys Pro Thr Lys Val Ser Ala Arg Gln Leu Pro Pro Ser Val Pro
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 His Arg Val His Pro Leu Ala Gly Gln Gly Val Asn Met Gly Phe Gly
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 Gln Arg His Asn Thr Ala Leu Leu Ala Ala Thr Asp Leu Leu Lys Arg
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 Leu Tyr Ser Thr Ser Ala Ser Pro Leu Val Leu Leu Arg Thr Trp Gly
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<210> 6011

<211> 1331

<212> DNA

<213> Homo sapiens

<400> 6011

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<210> 6012

<211> 219

<212> PRT

<213> Homo sapiens

<400> 6012

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			20					25					30		
Lys	Glu	Pro	Gly	Asp	Ser	Ala	Gln	Phe	Thr	Lys	Ala	Ile	Ala	Ile	Ile
		35				40					45				
Phe	Pro	Phe	Leu	Tyr	Leu	Leu	Glu	Lys	Val	Glu	Cys	Thr	Pro	Ser	Gln
	50				55					60					
Glu	His	Leu	Lys	His	Gln	Thr	Val	Tyr	Arg	Leu	Leu	Lys	Cys	Ala	Pro
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Arg	Gly	Lys	Asn	Gly	Phe	Thr	Pro	Leu	His	Met	Ala	Val	Asp	Lys	Asp
			85					90					95		
Thr	Thr	Asn	Val	Gly	Arg	Tyr	Pro	Val	Gly	Arg	Phe	Pro	Ser	Leu	His
		100						105					110		
Val	Val	Lys	Val	Leu	Leu	Asp	Cys	Gly	Ala	Asp	Pro	Asp	Ser	Arg	Asp
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Phe	Asp	Asn	Asn	Thr	Pro	Leu	His	Ile	Ala	Ala	Gln	Asn	Asn	Cys	Pro
	130					135					140				
Ala	Ile	Met	Asn	Ala	Leu	Ile	Glu	Ala	Gly	Ala	His	Met	Asp	Ala	Thr
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Asn	Ala	Phe	Lys	Lys	Thr	Ala	Tyr	Glu	Leu	Leu	Asp	Glu	Lys	Leu	Leu

	165		170		175
Ala Arg Gly Thr Met Gln Pro Phe Asn Tyr Val Thr Leu Gln Cys Leu					
	180		185		190
Ala Ala Arg Ala Leu Asp Lys Asn Lys Ile Pro Tyr Lys Gly Phe Ile					
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Pro Glu Asp Leu Glu Ala Phe Ile Glu Leu His					
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<210> 6013

<211> 2204

<212> DNA

<213> Homo sapiens

<400> 6013

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<210> 6014

<211> 182

<212> PRT

<213> Homo sapiens

<400> 6014

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			20					25				30			
Val	Lys	His	Ala	Lys	Val	Tyr	Thr	Cys	Thr	Ile	Cys	Ser	Arg	Ala	Tyr
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Thr	Ser	Glu	Thr	Tyr	Leu	Met	Lys	His	Met	Arg	Lys	His	Asn	Pro	Pro
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Asp	Leu	Gln	Gln	Gln	Val	Gln	Ala	Ala	Ala	Ala	Ala	Ala	Val	Ala	
65					70				75				80		
Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala
			85				90					95			
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Gln Gln Gln Gln Gln Gln Gln Gln Pro Pro Pro His Phe Gln Ser
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      130      135      140
Pro Pro Pro Gln Cys Ser Phe Asp Leu Thr Pro Tyr Lys Thr Ala Glu
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Glu His Leu Ala Ser Ser
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<210> 6015

<211> 612

<212> DNA

<213> Homo sapiens

<400> 6015

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<210> 6016

<211> 99

<212> PRT

<213> Homo sapiens

<400> 6016

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Pro Arg Ser Pro Glu Arg Leu Pro Ala Ser Gln Gly Ile Ser Arg Gly
 20     25     30
Arg Cys Lys Leu Asn Asn Asn Ser Trp Ser Gly Leu Thr Cys Pro Thr
 35     40     45
Leu Ser Met Ser Cys Asn Gln Asn Lys Leu Asp Ser Pro Gly Arg Ala

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50 55 60
 Ser His Gly Ser Ser Leu Pro Phe Asn Gln Asp Ser Gln Lys Pro Ala
 65 70 75 80
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 Gln Tyr Ile

<210> 6017

<211> 2091

<212> DNA

<213> Homo sapiens

<400> 6017

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<210> 6018

<211> 537

<212> PRT

<213> Homo sapiens

<400> 6018

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 35 40 45
 Asn Ser Gln Gln Ala Ala Asn Val Leu Ser Gly Ala Cys Gly Leu Gln
 50 55 60
 Arg Gly Asp Arg Val Ala Val Met Leu Pro Arg Val Pro Glu Trp Trp
 65 70 75 80
 Leu Val Ile Leu Gly Cys Ile Arg Ala Gly Leu Ile Phe Met Pro Gly
 85 90 95
 Thr Ile Gln Met Lys Ser Thr Asp Ile Leu Tyr Arg Leu Gln Met Ser
 100 105 110
 Lys Ala Lys Ala Ile Val Ala Gly Asp Glu Val Ile Gln Glu Val Asp
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 Thr Val Ala Ser Glu Cys Pro Ser Leu Arg Ile Lys Leu Leu Val Ser

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Ala Ser Thr Thr His His Cys Val Glu Thr Gly Ser Gln Glu Ala Ser		160
165	170	175
Ala Ile Tyr Phe Thr Ser Gly Thr Ser Gly Leu Pro Lys Met Ala Glu		
180	185	190
His Ser Tyr Ser Ser Leu Gly Leu Lys Ala Lys Met Asp Ala Gly Trp		
195	200	205
Thr Gly Leu Gln Ala Ser Asp Ile Met Trp Thr Ile Ser Asp Thr Gly		
210	215	220
Trp Ile Leu Asn Ile Leu Gly Ser Leu Leu Glu Ser Trp Thr Leu Gly		
225	230	235
Ala Cys Thr Phe Val His Leu Leu Pro Lys Phe Asp Pro Leu Val Ile		240
245	250	255
Leu Lys Thr Leu Ser Ser Tyr Pro Ile Lys Ser Met Met Gly Ala Pro		
260	265	270
Ile Val Tyr Arg Met Leu Leu Gln Asp Leu Ser Ser Tyr Lys Phe		
275	280	285
Pro His Leu Gln Asn Cys Leu Ala Gly Gly Glu Ser Leu Leu Pro Glu		
290	295	300
Thr Leu Glu Asn Trp Arg Ala Gln Thr Gly Leu Asp Ile Arg Glu Phe		
305	310	315
Tyr Gly Gln Thr Glu Thr Gly Leu Thr Cys Met Val Ser Lys Thr Met		320
325	330	335
Lys Ile Lys Pro Gly Tyr Met Gly Thr Ala Ala Ser Cys Tyr Asp Val		
340	345	350
Gln Val Ile Asp Asp Lys Gly Asn Val Leu Pro Pro Gly Thr Glu Gly		
355	360	365
Asp Ile Gly Ile Arg Val Lys Pro Ile Arg Pro Ile Gly Ile Phe Ser		
370	375	380
Gly Tyr Val Glu Asn Pro Asp Lys Thr Ala Ala Asn Ile Arg Gly Asp		
385	390	395
Phe Trp Leu Leu Gly Asp Arg Gly Ile Lys Asp Glu Asp Gly Tyr Phe		400
405	410	415
Gln Phe Met Gly Arg Ala Asp Asp Ile Ile Asn Ser Ser Gly Tyr Arg		
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Val Glu Thr Ala Val Ile Ser Ser Pro Asp Pro Val Arg Gly Glu Val		
450	455	460
Val Lys Ala Phe Val Val Leu Ala Ser Gln Phe Leu Ser His Asp Pro		
465	470	475
Glu Gln Leu Thr Lys Glu Leu Gln Gln His Val Lys Ser Val Thr Ala		480
485	490	495
Pro Tyr Lys Tyr Pro Arg Lys Ile Glu Phe Val Leu Asn Leu Pro Lys		
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<210> 6019

<211> 3002

<212> DNA

<213> Homo sapiens

<400> 6019

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<210> 6020

<211> 387

<212> PRT

<213> Homo sapiens

<400> 6020

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      35           40           45
Ile Glu Asp Ile Cys Ile Cys Cys Gly Ser Leu Gln Val His Thr Gln
      50           55           60
His Pro Leu Phe Glu Gly Gly Ile Cys Ala Pro Cys Lys Asp Lys Phe
      65           70           75           80
Leu Asp Ala Leu Phe Leu Tyr Asp Asp Asp Gly Tyr Gln Ser Tyr Cys
      85           90           95
Ser Ile Cys Cys Ser Gly Glu Thr Leu Leu Ile Cys Gly Asn Pro Asp
      100          105          110
Cys Thr Arg Cys Tyr Cys Phe Glu Cys Val Asp Ser Leu Val Gly Pro
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Gly Thr Ser Gly Lys Val His Ala Met Ser Asn Trp Val Cys Tyr Leu
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Cys Leu Pro Ser Ser Arg Ser Gly Leu Leu Gln Arg Arg Arg Lys Trp
      145          150          155          160
Arg Ser Gln Leu Lys Ala Phe Tyr Asp Arg Glu Ser Glu Asn Pro Leu
      165          170          175
Glu Met Phe Glu Thr Val Pro Val Trp Arg Arg Gln Pro Val Arg Val
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      195          200          205
Leu Glu Ser Gly Ser Asp Pro Gly Gln Leu Lys His Val Val Asp Val
      210          215          220
Thr Asp Thr Val Arg Lys Asp Val Glu Glu Trp Gly Pro Phe Asp Leu
      225          230          235          240
Val Tyr Gly Ala Thr Ala Pro Leu Gly His Thr Cys Asp Arg Pro Pro
      245          250          255
Ser Trp Tyr Leu Phe Gln Phe His Arg Phe Leu Gln Tyr Ala Arg Pro
      260          265          270
Lys Pro Gly Ser Pro Arg Pro Phe Phe Trp Met Phe Val Asp Asn Leu
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Val Leu Asn Lys Glu Asp Leu Asp Val Ala Ser Arg Phe Leu Glu Met
      290          295          300
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      305          310          315          320
Val Arg Val Trp Ser Asn Ile Pro Ala Ile Arg Ser Ser Arg His Trp
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Ala Leu Val Ser Glu Glu Glu Leu Ser Leu Leu Ala Gln Asn Lys Gln
      340          345          350
Ser Ser Lys Leu Ala Ala Lys Trp Pro Thr Lys Leu Val Lys Asn Cys
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385

<210> 6021

<211> 3145

<212> DNA

<213> Homo sapiens

<400> 6021

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<211> 496

<212> PRT

<213> Homo sapiens

<400> 6026

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Gln Val Cys Asn Leu Ala Trp Ser Lys His Ala Asn Glu Leu Val Ser			
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<212> PRT

<213> Homo sapiens

<400> 6034

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 Pro Pro Gln Pro Gln Tyr Ser Tyr His Asp Ile Asn Val Tyr Ser Leu
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 Ala Val Gln Glu Leu Val His Pro Val Val Asp Arg Ser Ile Lys Ile
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 145 150 155 160
 Leu Thr Ala Gly Met Ala Met Ile Thr Cys Arg Glu Pro Leu Leu Met
 165 170 175
 Ser Ile Ser Thr Asn Leu Lys Asn Ser Phe Ala Ser Ala Leu Arg Thr
 180 185 190
 Ala Ser Pro Gln Gln Arg Glu Met Met Asp Gln Ala Ala Ala Gln Leu
 195 200 205
 Ala Gln Asp Asn Cys Glu Leu Ala Cys Cys Phe Ile Gln Lys Thr Ala
 210 215 220
 Val Glu Lys Ala Gly Pro Glu Met Asp Lys Arg Leu Ala Thr Glu Phe

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Glu Leu Arg Lys His Ala Arg Gln Glu Gly Arg Arg Tyr Cys Asp Pro
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Val Val Leu Thr Tyr Gln Ala Glu Arg Met Pro Glu Gln Ile Arg Leu
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Lys Val Gly Gly Val Asp Pro Lys Gln Leu Ala Val Tyr Glu Glu Phe
          275          280          285
Ala Arg Asn Val Pro Gly Phe Leu Pro Thr Asn Asp Leu Ser Gln Pro
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Thr Gly Phe Leu Ala Gln Pro Met Lys Gln Ala Trp Ala Thr Asp Asp
305          310          315          320
Val Ala Gln Ile Tyr Asp Lys Cys Ile Thr Glu Leu Glu Gln His Leu
          325          330          335
His Ala Ile Pro Pro Thr Leu Ala Met Asn Pro Gln Ala Gln Ala Leu
          340          345          350
Arg Ser Leu Leu Glu Val Val Val Leu Ser Arg Asn Ser Arg Asp Ala
          355          360          365
Ile Ala Ala Leu Gly Leu Leu Gln Lys Ala Val Glu Gly Leu Leu Asp
          370          375          380
Ala Thr Ser Gly Ala Asp Ala Asp Leu Leu Leu Arg Tyr Arg Glu Cys
385          390          395          400
His Leu Leu Val Leu Lys Ala Leu Gln Asp Gly Arg Ala Tyr Gly Ser
          405          410          415
Pro Trp Cys Asn Lys Gln Ile Thr Arg Cys Leu Ile Glu Cys Arg Asp
          420          425          430
Glu Tyr Lys Tyr Asn Val Glu Ala Val Glu Leu Leu Ile Arg Asn His
          435          440          445
Leu Val Asn Met Gln Gln Tyr Asp Leu His Leu Ala Gln Ser Met Glu
          450          455          460
Asn Gly Leu Asn Tyr Met Ala Val Ala Phe Ala Met Gln Leu Val Lys
465          470          475          480
Ile Leu Leu Val Asp Glu Arg Ser Val Ala His Val Thr Glu Ala Asp
          485          490          495
Leu Phe His Thr Ile Glu Thr Leu Met Arg Ile Asn Ala His Ser Arg
          500          505          510
Gly Asn Ala Pro Glu Gly Leu Pro Gln Leu Met Glu Val Val Arg Ser
          515          520          525
Asn Tyr Glu Ala Met Ile Asp Arg Ala His Gly Gly Pro Asn Phe Met
          530          535          540
Met His Ser Gly Ile Ser Gln Ala Ser Glu Tyr Asp Asp Pro Pro Gly
545          550          555          560
Leu Arg Glu Lys Ala Glu Tyr Leu Leu Arg Glu Trp Val Asn Leu Tyr
          565          570          575
His Ser Ala Ala Ala Gly Arg Asp Ser Thr Lys Ala Phe Ser Ala Phe
          580          585          590
Val Gly Gln Val Glu Leu Leu Glu Arg Lys Met His Gln Gln Gly Ile
          595          600          605
Leu Lys Thr Asp Asp Leu Ile Thr Arg Phe Phe Arg Leu Cys Thr Glu
          610          615          620
Met Cys Val Glu Ile Ser Tyr Arg Ala Gln Ala Glu Gln Gln His Asn
625          630          635          640
Pro Ala Ala Asn Pro Thr Met Ile Arg Ala Lys Cys Tyr His Asn Leu
          645          650          655
Asp Ala Phe Val Arg Leu Ile Ala Leu Leu Val Lys His Ser Gly Glu

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 820 825 830
 Tyr His Tyr Gly Phe Cys Asp Val Ile Pro Pro Asn Cys Ile Gln Leu
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 Gly Leu Leu Ile Thr Phe Ile Glu Leu Ile Lys Asn Pro Ala Phe Lys
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 <211> 320
 <212> DNA
 <213> Homo sapiens

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<210> 6036
 <211> 102
 <212> PRT
 <213> Homo sapiens

<400> 6036
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 Arg Gln Val Leu Gln Glu Pro Ser Arg Glu Pro Pro Gly Trp Leu Gly
 35 40 45
 Ala Trp Pro Arg Ser Gln Ser His Asn Ala His His Cys Pro Thr Met
 50 55 60
 Pro Phe Arg Met Glu Pro Leu Ile His Trp Ala His Ser His Gly Gln
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<210> 6037
 <211> 3910
 <212> DNA
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 <211> 214
 <212> PRT
 <213> Homo sapiens

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 Gly Tyr Val His Pro Asp Leu Leu Lys Asp Phe Cys Met Asn Pro Gln
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 Thr Val Leu Leu Leu Arg Val Ile Ala Ala Phe Cys Phe Leu Gly Ile
 65 70 75 80
 Leu Cys Ser Leu Ser Ala Phe Leu Leu Asp Val Phe Gly Pro Lys His
 85 90 95
 Pro Ala Leu Lys Ile Thr Arg Arg Tyr Ala Phe Ala His Ile Leu Thr
 100 105 110
 Val Leu Gln Cys Ala Thr Val Ile Gly Phe Ser Tyr Trp Ala Ser Glu
 115 120 125
 Leu Ile Leu Ala Gln Gln Gln Gln His Lys Lys Tyr His Gly Ser Gln
 130 135 140
 Val Tyr Val Thr Phe Ala Val Ser Phe Tyr Leu Val Ala Gly Ala Gly
 145 150 155 160
 Gly Ala Ser Ile Leu Ala Thr Ala Ala Asn Leu Leu Arg His Tyr Pro
 165 170 175
 Thr Glu Glu Glu Glu Gln Ala Leu Glu Leu Leu Ser Glu Met Glu Glu
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 195 200 205
 Pro Pro Ala Tyr Thr Pro
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<210> 6039

<211> 1130

<212> DNA

<213> Homo sapiens

<400> 6039

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<210> 6040

<211> 312

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<400> 6040

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 Ala Gln Ala Gly Arg Leu Pro Leu Leu Pro Cys Ala Arg Ala Tyr Val
 65 70 75 80
 Ser Pro Arg Ala Pro Phe Tyr Arg Pro Leu Ala Pro Glu Leu Arg Ala
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 100 105 110
 Gly Gln Val Phe Ser Trp Gly Gly Gly Arg His Gly Gln Leu Gly His
 115 120 125
 Gly Thr Leu Glu Ala Glu Leu Glu Pro Arg Leu Leu Glu Ala Leu Gln
 130 135 140
 Gly Leu Val Met Ala Glu Val Ala Ala Gly Gly Trp His Ser Val Cys
 145 150 155 160
 Val Ser Glu Thr Gly Asp Ile Tyr Ile Trp Gly Trp Asn Glu Ser Gly
 165 170 175
 Gln Leu Ala Leu Pro Thr Arg Asn Leu Ala Glu Asp Gly Glu Thr Val
 180 185 190
 Ala Arg Glu Ala Thr Glu Leu Asn Glu Asp Gly Ser Gln Val Lys Arg
 195 200 205
 Thr Gly Gly Ala Glu Asp Gly Ala Pro Ala Pro Phe Ile Ala Val Gln
 210 215 220
 Pro Phe Pro Ala Leu Leu Asp Leu Pro Met Gly Ser Asp Ala Val Lys
 225 230 235 240
 Ala Ser Cys Gly Ser Arg His Thr Ala Val Val Thr Arg Thr Gly Glu
 245 250 255
 Leu Tyr Thr Trp Gly Trp Gly Lys Tyr Gly Gln Leu Gly His Glu Asp
 260 265 270
 Thr Thr Ser Leu Asp Arg Pro Arg Arg Val Glu Tyr Phe Val Asp Lys
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<210> 6041

<211> 291

<212> DNA

<213> Homo sapiens

<400> 6041

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<210> 6042
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 <212> PRT
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 Ala Ala Gln Gln Tyr Pro Gly Asn Tyr Glu Gln Gln Gln Ile Leu Ile
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<210> 6043
 <211> 558
 <212> DNA
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<210> 6044
 <211> 152
 <212> PRT
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<400> 6044

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Lys Ile Ala Pro Leu Glu Ser His His Arg Pro Lys Arg Pro Asp Asp
 35           40           45
Pro Pro Gly Thr Leu Asn Pro Cys Pro Glu Arg Gly Gly Ala Gly Val
 50           55           60
Trp Ile Pro Ala Gly Ser Phe Gly Thr Gly Lys Asn Arg Gly Cys Ser
 65           70           75           80
Asp Arg Val Phe Thr Lys Thr Cys Ile Arg Gln Asp Pro Gly Arg Met
 85           90           95
Trp Val Ala Pro Pro Leu Cys Trp Ala Arg Arg Met Cys Pro His Arg
100           105           110
Ser Gln Ile Leu Phe Pro Gln Trp Val Val Gln Asp Thr Leu Asn Phe
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<210> 6045

<211> 1916

<212> DNA

<213> Homo sapiens

<400> 6045

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<210> 6046

<211> 457

<212> PRT

<213> Homo sapiens

<400> 6046

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Cys Ala Gly Thr Gln Thr Ala Val Ile Thr Arg Ile Ala Ser Ser Gln
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Val Ser Ser Gln Gly Ser Val Ala Ser Ser Thr Gly Ser Pro Ala Ser
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385              390              395              400
Lys Glu Arg Gln Phe His Phe Ala Gly Ile Arg Ser Arg Leu Asn His
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<210> 6047

<211> 773

<212> DNA

<213> Homo sapiens

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 <213> Homo sapiens

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 His Leu Pro Ser Ala Cys Leu Gly Ala Arg Arg Ser Ser Ser Leu Leu
 50 55 60
 Gly Tyr Gly Ser Cys Arg Asp Thr Gln Ser Trp Thr Pro Asp Pro Leu
 65 70 75 80
 Pro His Pro Pro Ser Leu Ser Pro Gln Ser Leu Leu Tyr Ser Gln Ala
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 Asp

<210> 6049
 <211> 479
 <212> DNA
 <213> Homo sapiens

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 Ser Asn Glu Arg Glu Asp Phe Asp Ser Thr Ser Ser Ser Ser Ser Thr
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 Pro Pro Leu Gln Pro Arg Asp Ser Ala Ser Pro Ser Thr Ser Ser Phe
 65 70 75 80
 Cys Leu Gly Val Ser Val Ala Ala Ser Ser His Val Pro Ile Gln Lys
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 Lys Leu Arg Phe Glu Asp Thr Leu Glu Phe Val Gly Phe Asp Ala Lys
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 Met Ala Glu Glu Ser Ser Ser Ser Ser Ser Ser Ser Ser Pro Thr Ala
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<210> 6051
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 <213> Homo sapiens

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<211> 518

<212> PRT

<213> Homo sapiens

<400> 6052

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Thr	Gly	His	Glu	Leu	Leu	Ser	Glu	Leu	Gln	Gln	Arg	Arg	Phe	Asn	Gly
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Ser	Asp	Gly	Gly	Val	Ser	Trp	Ser	Pro	Met	Asp	Asp	Glu	Leu	Leu	Ala
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Gln	Pro	Gln	Val	Met	Lys	Leu	Leu	Asp	Ser	Leu	Arg	Glu	Gln	Tyr	Thr
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Glu	Ile	Gln	Gln	Lys	Val	Met	Gln	Val	Val	Asn	Trp	Leu	Glu	Gly	Pro
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	245		250	255
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Gly Pro Met Glu Arg Met Xaa Thr Ile Glu Asn Lys Glu Asn Val Asp				
	275		280	285
His Ile Gln Gly Val Met Glu Asp Met Gln Leu Arg Lys Gln Arg Cys				
	290		295	300
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Val Val Leu Cys Gln Ser Leu Arg Cys Thr Ser Arg Ser Ser Gly Asp				
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Thr Leu Pro Arg Leu Asn Arg Val Trp Lys Gln Phe Thr Ile Ala Ser				
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Glu Glu Arg Val His Arg Leu Glu Met Ala Ile Ala Phe His Ser Asn				
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	435		440	445
Asp Glu Glu Gln Phe Asp Glu Ile Glu Ala Val Gly Lys Ser Leu Leu				
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465		470		475
Phe Gly Ser Pro Ser Asp Met Ala Ser Thr Ala Glu Asn Ile Arg Asp				
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<210> 6053

<211> 3257

<212> DNA

<213> Homo sapiens

<400> 6053

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<211> 382

<212> PRT

<213> Homo sapiens

<400> 6054

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Cys	Val	Gly	Lys	Arg	Asn	Tyr	Arg	Tyr	Phe	Tyr	Leu	Phe	Ile	Leu	Ser
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<213> Homo sapiens

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Thr	Glu	Ala	Leu	Cys	Trp	Ala	Glu	Gly	Gln	Arg	Leu	Phe	Ser	Ala	Gly
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Val Ser Lys Arg Lys Cys Ile Val Trp Gly Val Ala Phe Leu Ser Asp
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225          230          235          240
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          245          250          255
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<210> 6057

<211> 3924

<212> DNA

<213> Homo sapiens

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 130 135 140
 Ala Ala Phe Ser Trp Leu Ile Gly Phe Gly Asn Ser Val Leu Gln Ser
 145 150 155 160
 Ser Leu Thr Leu Asn Met Pro Arg Cys Gly His Gln Glu Val Asp His
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 Phe Phe Cys Glu Val Pro Ala Leu Leu Lys Leu Ser Cys Ala Asp Thr
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 Lys Pro Ile Glu Ala Glu Leu Phe Phe Phe Ser Val Leu Ile Leu Leu
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 Ile Pro Val Thr Leu Ile Leu Ile Ser Tyr Gly Phe Ile Ala Gln Ala
 210 215 220
 Val Leu Lys Ile Arg Ser Ala Glu Gly Arg Gln Lys Ala Phe Gly Thr
 225 230 235 240
 Cys Gly Ser His Met Ile Val Val Ser Leu Phe Tyr Gly Thr Ala Ile
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 Tyr Met Tyr Leu Gln Pro Pro Ser Ser Thr Ser Lys Asp Trp Gly Lys

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<210> 6061

<211> 1582

<212> DNA

<213> Homo sapiens

<400> 6061

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<210> 6062
 <211> 226
 <212> PRT
 <213> Homo sapiens

<400> 6062
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 Asp Asp Val Val Ile Thr Asn Pro His Ile Glu Ala Ile Leu Glu Asn
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 Glu Asp Trp Ile Glu Asp Ala Ser Gly Leu Met Ser His Cys Ile Ala
 85 90 95
 Ile Leu Lys Ile Cys His Thr Leu Thr Glu Lys Leu Val Ala Met Thr
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 Met Gly Ser Gly Ala Lys Met Lys Thr Ser Ala Ser Val Ser Asp Ile
 115 120 125
 Ile Val Val Ala Lys Arg Ile Ser Pro Arg Val Asp Asp Val Val Lys
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 Ser Met Tyr Pro Pro Leu Asp Pro Lys Leu Leu Asp Ala Arg Thr Thr
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 Cys His Leu Thr Gly Gly Leu Asp Trp Ile Asp Gln Ser Leu Ser Ala
 180 185 190
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<210> 6063
 <211> 2286

<212> DNA

<213> Homo sapiens

<400> 6063

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<210> 6064
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 <213> Homo sapiens

<400> 6064
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 35 40 45
 Asp Ala Ala Leu Ala Leu Gln Ala Arg Gly Cys Ser Val Lys Ile Trp
 50 55 60
 Thr Ala His Tyr Asp Pro Gly His Cys Phe Ala Glu Ser Arg Glu Leu
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 Pro Val Arg Cys Ala Gly Asp Trp Leu Pro Arg Gly Leu Gly Trp Gly
 85 90 95
 Gly Arg Gly Ala Ala Val Cys Ala Tyr Val Arg Met Val Phe Leu Ala
 100 105 110
 Leu Tyr Val Leu Phe Leu Ala Asp Glu Glu Phe Asp Val Val Val Cys
 115 120 125
 Asp Gln Val Ser Ala Cys Ile Pro Val Phe Arg Leu Ala Arg Arg Arg
 130 135 140
 Lys Lys Ile Leu Phe Tyr Cys His Phe Pro Asp Leu Leu Leu Thr Lys

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          180          185          190
Phe Thr Ala Ala Val Phe Lys Glu Thr Phe Lys Ser Leu Ser His Ile
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<210> 6065

<211> 2084

<212> DNA

<213> Homo sapiens

<400> 6065

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<210> 6066
 <211> 80
 <212> PRT
 <213> Homo sapiens

<400> 6066
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 35 40 45
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<210> 6067
 <211> 406

<212> DNA

<213> Homo sapiens

<400> 6067

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<210> 6068

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<212> PRT

<213> Homo sapiens

<400> 6068

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 35             40             45
Ser Arg Ser Ser Glu Pro Pro Ala Cys Pro Arg His Trp Pro Cys Pro
 50             55             60
Pro Gly Leu Pro Phe Gly Gln Gly Ala Val Ala Arg Ala Ala Pro Cys
 65             70             75             80
Pro Ala Tyr Ser His Ser Ala Val Gly Arg Pro Pro Leu Pro Arg Lys
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<210> 6069

<211> 456

<212> DNA

<213> Homo sapiens

<400> 6069

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180

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 His Arg Tyr His Arg Lys Glu Asn Leu Glu Tyr Cys Ile Met Val Ile
 35 40 45
 Gly Val Pro Asn Val Gly Lys Ser Ser Leu Ile Asn Ser Leu Arg Arg
 50 55 60
 Gln His Leu Arg Lys Gly Lys Ala Thr Arg Val Gly Gly Glu Pro Gly
 65 70 75 80
 Ile Thr Arg Ala Val Met Ser Lys Ile Gln Val Glu Ser Ser Gly Ala
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 Arg Pro Ser Thr Leu Ser Arg Ala Leu Gln Ala Ser Gly Thr Cys Arg
 100 105 110
 Pro Leu Cys Gly Phe Arg Leu Leu Thr Thr Leu Pro Ser Pro Pro Leu
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<210> 6071
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 <212> DNA
 <213> Homo sapiens

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<210> 6072

<211> 76

<212> PRT

<213> Homo sapiens

<400> 6072

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<210> 6073

<211> 387

<212> DNA

<213> Homo sapiens

<400> 6073

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<210> 6074

<211> 69

<212> PRT

<213> Homo sapiens

<400> 6074

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<211> 4668

<212> DNA

<213> Homo sapiens

<400> 6075

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<210> 6076

<211> 601

<212> PRT

<213> Homo sapiens

<400> 6076

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 Glu Val Gly Leu Ala Leu Lys Asp Leu Ala Lys Gln Tyr Ser Asp Arg
 35 40 45
 Leu Glu Cys Cys Glu Asn Glu Val Glu Lys Val Ile Glu Glu Ile Arg
 50 55 60
 Cys Lys Ala Ile Glu Arg Gly Thr Gly Asn Asp Asn Tyr Arg Thr Thr
 65 70 75 80
 Gly Ile Ala Thr Ile Glu Val Phe Leu Pro Pro Arg Leu Lys Lys Asp
 85 90 95
 Arg Lys Asn Leu Leu Glu Thr Arg Leu His Ile Thr Gly Arg Glu Leu
 100 105 110
 Arg Ser Lys Ile Ala Glu Thr Phe Gly Leu Gln Glu Asn Tyr Ile Lys
 115 120 125
 Ile Val Ile Asn Lys Lys Gln Leu Gln Leu Gly Lys Thr Leu Glu Glu
 130 135 140
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5259

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<210> 6077

<211> 2093

<212> DNA

<213> Homo sapiens

<400> 6077

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1380

5260

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<210> 6078
 <211> 213
 <212> PRT
 <213> Homo sapiens

<400> 6078
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 Ser Gly Arg Glu Gly Ala Ser Gly Pro Gly Val Gly Pro His Ile Tyr
 35 40 45
 Val Arg Glu Ala Glu Asp Arg Glu Leu Val Thr Met Ala Gly Pro Gln
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 Pro Leu Ala Leu Gln Leu Glu Gln Leu Leu Asn Pro Arg Pro Ser Glu
 65 70 75 80
 Ala Asp Pro Glu Ala Asp Pro Glu Glu Ala Thr Ala Ala Arg Val Ile
 85 90 95
 Asp Arg Phe Asp Glu Gly Glu Asp Gly Glu Gly Asp Phe Leu Val Val
 100 105 110
 Gly Ser Ile Arg Lys Leu Ala Ser Ala Ser Leu Leu Asp Thr Asp Lys
 115 120 125
 Arg Tyr Cys Gly Lys Thr Thr Ser Arg Lys Ala Trp Asn Glu Asp His
 130 135 140
 Trp Glu Gln Thr Leu Pro Gly Ser Ser Asp Glu Glu Ile Ser Asp Glu
 145 150 155 160
 Glu Gly Ser Gly Asp Glu Asp Ser Glu Gly Leu Gly Leu Glu Glu Tyr
 165 170 175
 Asp Glu Asp Asp Leu Gly Ala Ala Glu Glu Gln Glu Cys Gly Asp Gln

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<210> 6079

<211> 651

<212> DNA

<213> Homo sapiens

<400> 6079

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<210> 6080

<211> 162

<212> PRT

<213> Homo sapiens

<400> 6080

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			20					25					30		
Gln	Leu	Gln	Gly	Gly	Arg	Phe	Leu	Met	Gly	Thr	Asn	Ser	Pro	Asp	Ser
		35					40					45			
Arg	Asp	Gly	Glu	Gly	Pro	Val	Arg	Glu	Ala	Thr	Val	Lys	Pro	Phe	Ala
	50					55					60				
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65				70					75					80	
Glu	Lys	Lys	Tyr	Arg	Thr	Glu	Ala	Glu	Met	Phe	Gly	Trp	Ser	Phe	Val
				85				90					95		
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Pro Ala Lys His Arg Asn Thr Ser Ala Val Leu Gly Cys Leu Ala Glu
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              100              105              110
Glu Tyr Leu Leu Gln Cys Leu Lys Leu Gln Ser His Pro Thr Val Met
              115              120              125
Leu Phe Ala Leu Ile Ala Leu Glu Lys Phe Ala Gln Thr Ser Glu Asn
              130              135              140
Lys Leu Thr Ile Ser Glu Ser Ser Ile Ser Asp Arg Leu Val Thr Leu
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Glu Ser Trp Ala Asn Asp Pro Asp Tyr Leu Lys Arg Gln Val Gly Phe
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Cys Ala Gln Trp Ser Leu Asp Asn Leu Phe Leu Lys Glu Gly Arg Gln
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<210> 6083
 <211> 358
 <212> DNA
 <213> Homo sapiens

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240
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358

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<210> 6084
 <211> 101
 <212> PRT
 <213> Homo sapiens

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<400> 6084
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20      25      30
Leu Ile Val Glu Gly His Leu Thr Lys Ala Val Glu Glu Thr Lys Leu
35      40      45
Ser Lys Glu Asn Gln Thr Arg Ala Lys Glu Ser Asp Phe Ser Asp Thr
50      55      60
Leu Ser Pro Ser Lys Glu Lys Ser Ser Asp Asp Thr Thr Asp Ala Gln

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65		70		75		80									
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<210> 6085

<211> 2307

<212> DNA

<213> Homo sapiens

<400> 6085

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<212> DNA

<213> Homo sapiens

<400> 6091

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<210> 6092

<211> 118

<212> PRT

<213> Homo sapiens

<400> 6092

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Thr Pro Asn Trp Tyr Trp Val Leu Gly His Pro Asn Leu Ile Arg Asp
      35             40             45
Val Thr Arg Gln Val Pro Ser Pro Pro Ser Gly Phe Arg Leu Pro Ser
      50             55             60
Ser Arg His Glu Gly Pro Ser Pro Pro Arg Asp Leu Gly Thr Ser Gly
65             70             75             80
Pro Ser Arg Ala Ala Ser His Lys Pro Ser Asn Glu Gln Arg Asp Ala
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Gly Gln Gln Leu Gln Leu His Leu Leu Pro Ala Leu Lys Gly Ser Phe
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<210> 6093

<211> 1998

<212> DNA

<213> Homo sapiens

<400> 6093

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<210> 6094

<211> 136

<212> PRT

<213> Homo sapiens

<400> 6094

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			20					25						30	
Thr	Gly	Pro	Val	Ser	Gln	Ser	Phe	Leu	Gln	Met	Leu	Ile	Gly	Val	Cys
			35					40						45	
Trp	Asn	Pro	Lys	Pro	Leu	Pro	Arg	Leu	Gln	Ala	Pro	Asp	Gly	Leu	Leu
			50					55				60			
Ser	Cys	Asn	Phe	Leu	Gly	Glu	Glu	Thr	Phe	Ser	Ser	Phe	Pro	Phe	Leu
65				70						75				80	
Val	His	Pro	Cys	Thr	Leu	Val	Leu	Ser	Gln	Pro	Leu	Pro	His	Ile	Val


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Pro Asp Ser Arg Gly Thr Ser Ser Leu His Arg Ala Ala Ala Gly
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Pro Leu Ser Leu Gly Pro Leu Gly
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<210> 6095
 <211> 441
 <212> DNA
 <213> Homo sapiens

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441

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<210> 6096
 <211> 97
 <212> PRT
 <213> Homo sapiens

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<400> 6096
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      20      25      30
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      35      40      45
Thr Cys Ala Ile Cys Arg Val Gln Val Met Val Val Trp Gly Glu Cys
      50      55      60
Asn His Ser Phe His Asn Cys Cys Met Ser Leu Trp Val Lys Gln Asn
65      70      75      80
Asn Arg Cys Pro Leu Cys Gln Gln Asp Trp Val Val Gln Arg Ile Gly
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<210> 6097
 <211> 2404

<212> DNA

<213> Homo sapiens

<400> 6097

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<210> 6098

<211> 631

<212> PRT

<213> Homo sapiens

<400> 6098

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		20						25					30		
Arg	Ser	Gly	Asp	Val	Ile	Glu	Tyr	Leu	Leu	Lys	Asn	Gln	Trp	Phe	Val
		35					40					45			
Arg	Cys	Gln	Glu	Met	Gly	Ala	Arg	Ala	Ala	Lys	Ala	Val	Glu	Ser	Gly
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Ala	Leu	Glu	Leu	Ser	Pro	Ser	Phe	His	Gln	Lys	Asn	Trp	Gln	His	Trp
65				70					75				80		
Phe	Ser	His	Ile	Gly	Asp	Trp	Cys	Val	Ser	Arg	Gln	Leu	Trp	Trp	Gly
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His	Gln	Ile	Pro	Ala	Tyr	Leu	Val	Xaa	Xaa	Gly	Pro	Cys	Ala	Xaa	Gly
		100					105					110			
Glu	Glu	Xaa	Thr	Cys	Trp	Val	Val	Gly	Arg	Ser	Gly	Ala	Glu	Ala	Arg

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Pro Phe Ser Ala Leu Gly Trp Pro Gln Glu Thr Pro Asp Leu Ala Arg
      165              170              175
Phe Tyr Pro Leu Ser Leu Leu Glu Thr Gly Ser Asp Leu Leu Phe
      180              185              190
Trp Val Gly Arg Met Val Met Leu Gly Thr Gln Leu Thr Gly Gln Leu
      195              200              205
Pro Phe Ser Lys Val Leu Leu His Pro Met Val Arg Asp Arg Gln Gly
      210              215              220
Arg Lys Met Ser Lys Ser Leu Gly Asn Val Leu Asp Pro Arg Asp Ile
      225              230              235              240
Ile Ser Gly Val Glu Met Gln Leu Leu Gln Glu Lys Leu Arg Ser Gly
      245              250              255
Asn Leu Asp Pro Ala Glu Leu Ala Ile Val Ala Ala Ala Gln Lys Lys
      260              265              270
Asp Phe Pro His Gly Ile Pro Glu Cys Gly Thr Asp Ala Leu Arg Phe
      275              280              285
Thr Leu Cys Ser His Gly Val Gln Ala Gly Asp Leu His Leu Ser Val
      290              295              300
Ser Glu Val Gln Ser Cys Arg His Phe Cys Asn Lys Ile Trp Asn Ala
      305              310              315              320
Leu Arg Phe Ile Leu Asn Ala Leu Gly Glu Lys Phe Val Pro Gln Pro
      325              330              335
Ala Glu Glu Leu Ser Pro Ser Ser Pro Met Asp Ala Trp Ile Leu Ser
      340              345              350
Arg Leu Ala Leu Ala Ala Gln Glu Cys Glu Arg Gly Phe Leu Thr Arg
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Glu Leu Ser Leu Val Thr His Ala Leu His His Phe Trp Leu His Asn
      370              375              380
Leu Cys Asp Val Tyr Leu Glu Ala Val Lys Pro Val Leu Trp His Ser
      385              390              395              400
Pro Arg Pro Leu Gly Pro Pro Gln Val Leu Phe Ser Cys Ala Asp Leu
      405              410              415
Gly Leu Arg Leu Leu Ala Pro Leu Met Pro Phe Leu Ala Glu Glu Leu
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Trp Gln Arg Leu Pro Pro Arg Pro Gly Cys Pro Pro Ala Pro Ser Ile
      435              440              445
Ser Val Ala Pro Tyr Pro Ser Ala Cys Ser Leu Glu His Trp Arg Gln
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Pro Glu Leu Glu Arg Arg Phe Ser Arg Val Gln Glu Val Val Gln Val
      465              470              475              480
Leu Arg Ala Leu Arg Ala Thr Tyr Gln Leu Thr Lys Ala Arg Pro Arg
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Val Leu Leu Gln Ser Ser Glu Pro Gly Asp Gln Gly Leu Phe Glu Ala
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Phe Leu Glu Pro Leu Gly Thr Leu Gly Tyr Cys Gly Ala Val Gly Leu
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<211> 3957
<212> DNA
<213> Homo sapiens
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<211> 1102

<212> PRT

<213> Homo sapiens

<400> 6100

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 Leu Pro Pro Pro Ala Pro Gly Ser Pro Ala Ala Pro Ala Ala Val Ser
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 Pro Ala Ala Gly Gln Pro Arg Pro Pro Ala Pro Ala Ser Arg Gly Pro

5284

5285

900 905 910
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 Leu Pro Pro Thr Glu Phe Ala Gln Leu Ile Lys Arg Gln Gln Gln Gln
 930 935 940
 Arg Gln Gln Gln Gln Gln Gln Gln Gln Gln Tyr Gln Glu Leu
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 Phe Arg His Met Asn Gln Gly Asp Ala Gly Ser Leu Ala Pro Ser Leu
 965 970 975
 Gly Gly Gln Ser Met Thr Glu Arg Gln Ala Leu Ser Tyr Gln Asn Ala
 980 985 990
 Asp Ser Tyr His His Thr Ile Gln Asn Ser Asp Asp Ala Tyr Val Gln
 995 1000 1005
 Leu Asp Asn Leu Pro Gly Met Ser Leu Val Ala Gly Lys Ala Leu Ser
 1010 1015 1020
 Ser Ala Arg Met Ser Asp Ala Val Leu Ser Gln Ser Ser Leu Met Gly
 1025 1030 1035 1040
 Ser Gln Gln Phe Gln Asp Gly Glu Asn Glu Glu Cys Gly Ala Ser Leu
 1045 1050 1055
 Gly Gly His Glu His Pro Asp Leu Ser Asp Gly Ser Gln His Leu Asn
 1060 1065 1070
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<210> 6101

<211> 1447

<212> DNA

<213> Homo sapiens

<400> 6101

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<210> 6102
 <211> 123
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Ile His Leu Gly Pro Arg Gln Ala Val Arg Pro Ser Val Arg Ala Glu
 50 55 60
 Ser Arg Arg Val Asp Gly Gly Arg Ser Pro Arg Glu Pro Asp Gly
 65 70 75 80
 Arg Gly Arg Ser Arg Gln Ala Arg Phe Ser Pro Tyr Pro Ile Pro Ala
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 Val Glu Pro Asp Leu Leu Arg Ser Val Leu Gln Gln Arg Leu Ile Ala
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 Leu Gly Gly Val Ile Ala Ala Arg Ile Ser Val
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<210> 6103
 <211> 309

<212> DNA

<213> Homo sapiens

<400> 6103

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<210> 6104

<211> 71

<212> PRT

<213> Homo sapiens

<400> 6104

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			20					25					30		
Leu	Asn	Arg	Leu	Gln	Tyr	Ala	Val	Ile	Ser	Glu	Ala	Trp	Arg	Leu	Val
		35					40					45			
Glu	Glu	Glu	Ile	Val	Ser	Pro	Ser	Asp	Leu	Asp	Leu	Val	Met	Ser	Asp
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<210> 6105

<211> 1846

<212> DNA

<213> Homo sapiens

<400> 6105

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1846

<210> 6106

<211> 405

<212> PRT

<213> Homo sapiens

<400> 6106

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 35 40 45
 His Leu Leu Cys Arg Gly Pro Ser Gly Ser Leu Ser Ala Pro Pro Ala
 50 55 60
 Ala Ser Val Ile Ser Ala Pro Pro Ser Ser Ser Ser Arg His Arg Lys
 65 70 75 80
 Arg Arg Arg Thr Ser Ser Lys Ser Glu Ala Gly Ala Arg Gly Gly Gly
 85 90 95
 Gln Gly Ser Lys Glu Lys Gly Arg Gly Ser Trp Gly Gly Arg His His
 100 105 110
 His His His Pro Leu Pro Ala Ala Gly Phe Lys Lys Gln Gln Arg Lys
 115 120 125
 Phe Gln Tyr Gly Asn Tyr Cys Lys Tyr Tyr Gly Tyr Arg Asn Pro Ser
 130 135 140
 Cys Glu Asp Gly Arg Leu Arg Val Leu Lys Pro Glu Trp Phe Arg Gly
 145 150 155 160
 Arg Asp Val Leu Asp Leu Gly Cys Asn Val Gly His Leu Thr Leu Ser
 165 170 175
 Ile Ala Cys Lys Trp Gly Pro Ser Arg Met Val Gly Leu Asp Ile Asp
 180 185 190
 Ser Arg Leu Ile His Ser Ala Arg Gln Asn Ile Arg His Tyr Leu Ser
 195 200 205
 Glu Glu Leu Arg Leu Pro Pro Gln Thr Leu Glu Gly Asp Pro Gly Ala
 210 215 220
 Glu Gly Glu Glu Gly Thr Thr Thr Val Arg Lys Arg Ser Cys Phe Pro
 225 230 235 240
 Ala Ser Leu Thr Ala Ser Arg Gly Pro Ile Ala Ala Pro Gln Val Pro
 245 250 255
 Leu Asp Gly Ala Asp Thr Ser Val Phe Pro Asn Asn Val Val Phe Val
 260 265 270
 Thr Gly Asn Tyr Val Leu Asp Arg Asp Asp Leu Val Glu Ala Gln Thr
 275 280 285
 Pro Glu Tyr Asp Val Val Leu Cys Leu Ser Leu Thr Lys Trp Val His
 290 295 300
 Leu Asn Trp Gly Asp Glu Gly Leu Lys Arg Met Phe Arg Arg Ile Tyr
 305 310 315 320
 Arg His Leu Arg Pro Gly Gly Ile Leu Val Leu Glu Pro Gln Pro Trp
 325 330 335
 Ser Ser Tyr Gly Lys Arg Lys Thr Leu Thr Glu Thr Ile Tyr Lys Asn
 340 345 350
 Tyr Tyr Arg Ile Gln Leu Lys Pro Glu Gln Phe Ser Ser Tyr Leu Thr
 355 360 365
 Ser Pro Asp Val Gly Phe Ser Ser Tyr Glu Leu Val Ala Thr Pro His
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<210> 6107
 <211> 896
 <212> DNA
 <213> Homo sapiens

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<210> 6108
 <211> 124
 <212> PRT
 <213> Homo sapiens

<400> 6108
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 35 40 45
 Leu Gly Ser Thr Pro Pro Pro Ala Pro Ala Ser Pro Val Glu Ser Pro
 50 55 60
 Arg Pro Ser Pro Ala Ser Ser Ala Phe Ser Ser Leu Pro Ser Asp Gly
 65 70 75 80
 Trp Gly Ser Ser Val Gly Ser Gly Leu Pro Trp Pro Ala Thr Arg Trp

	85		90		95										
Ser	Thr	Cys	Pro	Arg	Trp	Arg	Thr	Asp	Val	Ser	Pro	Ala	Asp	Thr	Ile
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<210> 6109

<211> 2087

<212> DNA

<213> Homo sapiens

<400> 6109

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1260

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<210> 6110

<211> 323

<212> PRT

<213> Homo sapiens

<400> 6110

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Cys	Val	Leu	Arg	Arg	Pro	Gly	Ala	Asn	His	Glu	Gly	Ser	Ala	Ser	Arg
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Glu	Ala	Leu	Ala	Ala	Leu	His	Val	Thr	Leu	Gln	Phe	Pro	Leu	Gln	Glu
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 195 200 205
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 225 230 235 240
 Cys Gly Ile Leu Phe Ser Cys Met Thr Pro Leu Gly Ile Gly Leu Gly
 245 250 255
 Ala Ala Leu Ala Glu Ser Ala Gly Pro Leu His Gln Leu Ala Gln Ser
 260 265 270
 Val Leu Glu Gly Met Ala Ala Gly Thr Phe Leu Tyr Ile Thr Phe Leu
 275 280 285
 Glu Ile Leu Pro Gln Glu Leu Ala Ser Ser Glu Gln Arg Ile Leu Lys
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<210> 6111

<211> 1706

<212> DNA

<213> Homo sapiens

<400> 6111

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 acattttctc tgaaaaaaaa aaaaaa
 1706

<210> 6112

<211> 110

<212> PRT

<213> Homo sapiens

<400> 6112

Met	Ser	Leu	Phe	Cys	Phe	Val	Leu	Phe	Leu	Arg	Trp	Ser	Phe	Pro	Leu
1				5					10					15	
Val	Ala	Gln	Ala	Gly	Val	Xaa	Trp	His	Ser	Leu	Gly	Ser	Leu	Gln	Pro
		20						25					30		
Pro	Leu	Pro	Gly	Phe	Lys	Gln	Phe	Ser	Cys	Arg	Ser	Leu	Pro	Ser	Ser
		35					40					45			
Trp	Asp	Tyr	Arg	His	Ala	Pro	Pro	Arg	Gln	Ala	Asn	Phe	Cys	Ile	Phe
	50					55					60				
Ser	Arg	Asp	Gly	Val	Ser	Pro	Cys	Trp	Pro	Gly	Trp	Ser	Gln	Thr	Pro
65					70					75				80	
Asp	Leu	Arg	Arg	Ser	Thr	His	Leu	Ser	Val	Pro	Lys	Cys	Trp	Asp	Tyr
				85					90				95		
Arg	Arg	Glu	Pro	Pro	His	Leu	Ala	Tyr	Glu	Trp	Ser	Phe	Asn		

100

105

110

<210> 6113
<211> 1095
<212> DNA
<213> Homo sapiens

<400> 6113
nncggccgcc aagcgatccc tgctccgcgc gacactgcgt gcccgcgcac gcagagagggc
60
ggtgacgcac ttacggcgg cagcgtaagt gcgtgacgct cgtcagtggc ttcagttcac
120
acgtggcgcc agcggaggca ggttgatgtg tttgtgcttc cttctacagc caatatgaaa
180
aggcctagta agtggggtcg ggaggcgggc gtggaggggac ccacgtctgg aagtgtctgc
240
agccaccacg acgctcttct acggctacgg ctttgtctct gctggtatgg ggggtgggagc
300
atacgcgtag gccttgcccc tatttctctg tagaaccgag agttggaagt ccctacggcg
360
atcatgttaa ccgcgcgggc tcattctgcg gaacgaagcc gggcagaggg tggggaagac
420
taggctagat ttctgtaagg aagcagcgtc tgagccaggt ttgaggccca atattttctt
480
tccgtggcca cgtgcagact ggcccagggt agagctgaga atcgccctcc agactcagt
540
ttcctctcct gccttatgat tcgtgctggt tgacacgaag tggttgtcgt tttgtgtctc
600
atacgtgtt gtgtatgat ccattcta atgttgaggg taagtgcagg gaattttgac
660
tccattctgg atctactgaa tttaattctc tgggatttga aagtagcacg tatgtttgca
720
ttaggcattt cgcattagac ttaacgttag gtttggtagc caataacaca agaaaaggat
780
ataactccat agtgcgtaa cccagaacta atcatttggg ttaacagatt tgtgatgtgt
840
ttctttgtag agttaagaa agcaagtaaa cgcacgacct gccataagcg gtataaaatc
900
caaaaaaagg ttcgagaaca tcatcgaaaa ttaagaaagg aggctaaaaa gcgggggtcac
960
aagaagccta ggaaagaccc aggagttcca aacagtgctc cctttaagga ggctcttctt
1020
gaggaagctg agctaaggaa acagaggctt gaagaactaa aacagcagca gaaacttgac
1080
aggcagaagg aacta
1095

<210> 6114
<211> 87
<212> PRT
<213> Homo sapiens

<400> 6114
Met Cys Phe Phe Val Glu Leu Lys Lys Ala Ser Lys Arg Met Thr Cys

```

      1             5             10             15
His Lys Arg Tyr Lys Ile Gln Lys Lys Val Arg Glu His His Arg Lys
      20             25             30
Leu Arg Lys Glu Ala Lys Lys Arg Gly His Lys Lys Pro Arg Lys Asp
      35             40             45
Pro Gly Val Pro Asn Ser Ala Pro Phe Lys Glu Ala Leu Leu Glu Glu
      50             55             60
Ala Glu Leu Arg Lys Gln Arg Leu Glu Glu Leu Lys Gln Gln Gln Lys
      65             70             75             80
Leu Asp Arg Gln Lys Glu Leu
      85

```

<210> 6115

<211> 411

<212> DNA

<213> Homo sapiens

<400> 6115

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gcgcgcctgg ccccgccagg gcctaagttc cctgcactcg cttccccgcc tgtcgccgcc
60
gccgcgcccc gcagccctcc ttctcgtggg cgctggggaa gaaactcgtc ggcgggtcta
120
actgtggcgt cccagggcgg tggagggagc aacttcgggg gcacgtcctc gtaaattccc
180
tggaggacac tgacctgta cccaccctc gaggccagaa gtcggttcct ttgggggaac
240
tgaggggcga gagcactcgc cccctgact tgcaaagttg gcgtctttac ttggcctccg
300
ggattctcgc catggcgtgt ctccaggctg ctgatgggca agacagatgt gccaggtcca
360
gaatgaactt gagaagagtt tgtagccatt cctgaatcac cttatactag t
411

```

<210> 6116

<211> 129

<212> PRT

<213> Homo sapiens

<400> 6116

```

Met Ala Thr Asn Ser Ser Gln Val His Ser Gly Pro Gly Thr Ser Val
      1             5             10             15
Leu Pro Ile Ser Ser Leu Glu Thr Arg His Ala Gln Asn Pro Gly Gly
      20             25             30
Gln Val Lys Thr Pro Thr Leu Gln Val Arg Gly Ala Ser Ala Leu Ala
      35             40             45
Pro Gln Phe Pro Gln Arg Asn Arg Leu Leu Ala Ser Arg Val Gly Tyr
      50             55             60
Arg Val Ser Val Leu His Gly Ile Tyr Glu Asp Val Pro Pro Lys Leu
      65             70             75             80
Leu Pro Pro Pro Pro Trp Asp Ala Thr Val Arg Pro Ala Asp Glu Phe
      85             90             95
Leu Pro Gln Arg Pro Arg Glu Gly Gly Leu Arg Ala Ala Ala Ala Ala
      100            105            110
Thr Gly Gly Glu Ala Ser Ala Gly Asn Leu Gly Pro Gly Gly Ala Arg

```

115 120 125

Arg

<210> 6117
 <211> 962
 <212> DNA
 <213> Homo sapiens

<400> 6117
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 60
 gtggaagacg gagaggaaac ctgcgccctg gcctctcact ccgggagctc aggctccaag
 120
 tcgggaggcg acaagatggt ctccctcaag aagtggaaacg cgggagccat gtggagctgg
 180
 gacgtggagt gcgatactg cgccatctgc aggggtccagg tgatggatgc ctgtcttaga
 240
 tgtcaagctg aaaacaaaca agaggactgt gttgtggtct ggggagaatg taatcattec
 300
 ttccacaact gctgcatgtc cctgtgggtg aaacagaaca atcgctgccc tctctgccag
 360
 caggactggg tgggtccaaag aatcggcaaa tgagagtggg tagaaggctt cttagcgcag
 420
 ttgttcagag ccctggtgga tcttgtaatc cagtgcccta caaaggctag aacactacag
 480
 gggatgaatt cttcaaatag gagccgatgg atctgtggtc ctttgggact catcaaagcc
 540
 ttggtttagc attttgtcag ttttatcttc agaaattctc tgcgattaag aagataattt
 600
 attaaagggtg gtccttccta cctctgtggt gtgtgtcgcg cacacagctt agaagtgcta
 660
 taataaaagga aagagctcca aattgaatca cttttataat ttaccattt ctatacaaca
 720
 ggcagtggaa gcagtttcag agaacttttt gcatgcttat ggttgatcag ttaaaaaaga
 780
 atgttacagt aacaaataaa gtgcagttta aaaccaact cttactctta atttgttctt
 840
 aatacgtatt tttggcaggg agagggaacg gtccatgaaa tctttatgtg atataaggat
 900
 ttttaagttg ggccagtga cagggtaaat aaaatttaac ttttgagcat aaaaaaaaaa
 960
 aa
 962

<210> 6118
 <211> 113
 <212> PRT
 <213> Homo sapiens

<400> 6118
 Met Ala Asp Val Glu Asp Gly Glu Glu Thr Cys Ala Leu Ala Ser His
 1 5 10 15
 Ser Gly Ser Ser Gly Ser Lys Ser Gly Gly Asp Lys Met Phe Ser Leu

```

                20                25                30
Lys Lys Trp Asn Ala Val Ala Met Trp Ser Trp Asp Val Glu Cys Asp
      35                40                45
Thr Cys Ala Ile Cys Arg Val Gln Val Met Asp Ala Cys Leu Arg Cys
      50                55                60
Gln Ala Glu Asn Lys Gln Glu Asp Cys Val Val Val Trp Gly Glu Cys
65                70                75                80
Asn His Ser Phe His Asn Cys Cys Met Ser Leu Trp Val Lys Gln Asn
      85                90                95
Asn Arg Cys Pro Leu Cys Gln Gln Asp Trp Val Val Gln Arg Ile Gly
      100                105                110
Lys

```

<210> 6119
 <211> 375
 <212> DNA
 <213> Homo sapiens

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<400> 6119
accggttgac aacctcccta tggggaagct agatacagcc ccatggacat gccccactga
60
ccccacacc ccacacggac tgcacggaaa tatcacagta accatctctc agtcacagcg
120
tggccccaca gaactcatgc ctgcttgctt taaaccacc aatgaaaact ccccatggga
180
aacctgcttg gataatactt tggaccccaa taaatgcttt aatcccacaa gtcctctgtc
240
tctgctctc tcttgccctt acccactggg tgagcatgtg tgtcccaaac ggccctgcaa
300
ggtgtgctgc cctgttcttt ctgggctctg tcaaggaatc aaactgcttc tgttatgtga
360
tgtgtcatgt tgtgc
375

```

<210> 6120
 <211> 118
 <212> PRT
 <213> Homo sapiens

```

<400> 6120
Met Gly Lys Leu Asp Thr Ala Pro Trp Thr Cys Pro Thr Asp Pro His
1                5                10                15
Thr Pro His Gly Leu His Gly Asn Ile Thr Val Thr Ile Ser Gln Ser
      20                25                30
Gln Arg Gly Pro Thr Glu Leu Met Pro Ala Cys Phe Lys Pro Thr Asn
      35                40                45
Glu Asn Ser Pro Trp Glu Thr Cys Leu Asp Asn Thr Leu Asp Pro Asn
      50                55                60
Lys Cys Phe Asn Pro Thr Ser Pro Leu Ser Leu Pro Leu Ser Cys Pro
65                70                75                80
Tyr Pro Leu Val Glu His Val Cys Pro Lys Arg Pro Cys Lys Val Cys
      85                90                95
Cys Pro Val Leu Ser Gly Leu Cys Gln Gly Ile Lys Leu Leu Leu Leu

```

100
Cys Asp Val Ser Cys Cys
115

105

110

<210> 6121
<211> 1039
<212> DNA
<213> Homo sapiens

<400> 6121
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ttgtaaacaat tgatttgaat gatgacaaca tttgcagtgt ttgtaaactg ggaacagaca
120
aagaacact ctccttctgc cacatttgtt ttgagctaaa tattgagggg gtaccaaagt
180
ctgatctctt gcacaccaaa tcattaaggg gccataaaga ctgctttgaa aaataccatt
240
taattgcaaa ccagggttgt cctcgatcta agctttcaaa aagtacttat gaagaagtta
300
aaaccatttt gagtaagaag ataaactgga ttgtgcagta tgcacaaaat aaggatctgg
360
attcagattc tgaatgttct aaaaagcccc agcatcatct gtttaatttc aggcataagc
420
cagaagaaaa attactccca cagtttgagt cccaagtacc aaaatattct gcaaatgga
480
tagatggaag tgcagggtggc atctctaact gtacacaaag aattttggag cagagggaaa
540
atacagactt tggactttct atgttacaag attcagggtgc cactttatgt cgtaacagt
600
tattgtggcc tcatagtcac aaccaggcac agaaaaaaga agagacaatc tctagtccag
660
aggctaagt ccagaccag catccacatt acagcagaga ggaataagtt tttgaagagt
720
taactacca agtgcaagaa aaagattctt tggcctcaca gctccatgtc cgccacgttg
780
ccatcgaaca gcttctgaag aactgttcta agttaccatg tctgcaagta gggcgaacag
840
gaatgaagtc gcacctacc ataaacaact gacctaaaca gacttacttc gtatgccctg
900
ccctttattg gtctcccaga catgcaaact ttgaagaagt ttgaagaaag ttgtggtccg
960
tttttttatg gtcattaaat ttgccaaaca taaggcagta tttaacatct ttgtcaaata
1020
aagcagatca ttatactct
1039

<210> 6122
<211> 221
<212> PRT
<213> Homo sapiens

<400> 6122
Met Asn Glu Glu Glu Gln Phe Val Asn Ile Asp Leu Asn Asp Asp Asn


```

      1           5           10           15
Ile Cys Ser Val Cys Lys Leu Gly Thr Asp Lys Glu Thr Leu Ser Phe
      20           25           30
Cys His Ile Cys Phe Glu Leu Asn Ile Glu Gly Val Pro Lys Ser Asp
      35           40           45
Leu Leu His Thr Lys Ser Leu Arg Gly His Lys Asp Cys Phe Glu Lys
      50           55           60
Tyr His Leu Ile Ala Asn Gln Gly Cys Pro Arg Ser Lys Leu Ser Lys
      65           70           75           80
Ser Thr Tyr Glu Glu Val Lys Thr Ile Leu Ser Lys Lys Ile Asn Trp
      85           90           95
Ile Val Gln Tyr Ala Gln Asn Lys Asp Leu Asp Ser Asp Ser Glu Cys
      100          105          110
Ser Lys Lys Pro Gln His His Leu Phe Asn Phe Arg His Lys Pro Glu
      115          120          125
Glu Lys Leu Leu Pro Gln Phe Glu Ser Gln Val Pro Lys Tyr Ser Ala
      130          135          140
Lys Trp Ile Asp Gly Ser Ala Gly Gly Ile Ser Asn Cys Thr Gln Arg
      145          150          155          160
Ile Leu Glu Gln Arg Glu Asn Thr Asp Phe Gly Leu Ser Met Leu Gln
      165          170          175
Asp Ser Gly Ala Thr Leu Cys Arg Asn Ser Val Leu Trp Pro His Ser
      180          185          190
His Asn Gln Ala Gln Lys Lys Glu Glu Thr Ile Ser Ser Pro Glu Ala
      195          200          205
Asn Val Gln Thr Gln His Pro His Tyr Ser Arg Glu Glu
      210          215          220

```

<210> 6123

<211> 900

<212> DNA

<213> Homo sapiens

<400> 6123

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ntgcatgcct gtataccaca gctactcggg aggctgaggc gggagaatcg cttgaaccca
60
ggaggcggag gttgcggtga gctgagatcg caccattgca ctccagcctg ggcaacaaga
120
gcgaaacaac aagagaaaaa aaaggaagct gccctctgcc caaaacccac gtcgaggtcc
180
ccaaacctgg gacccttagg tcttttctca cttagcgtgc ccaaccttct cctggcagga
240
aacaagcctc caggtctgct tccccgcaaa ggactataca tggcaaatga cttaaagctc
300
ctgagacacc atctccagat tcccatccac ttccccaagg atttcttgtc tgtgatgctt
360
gaaaaaggaa gtttgtctgc catgcgtttc ctcaccgccg tgaacttgga gcatccagag
420
atgctggaga aagcgtcccg ggagctgtgg atgcgcgtct ggtcaagggt gagtgtgggg
480
ctctgggaat cctctgggag gaccttgat gactttctga ccttccccag gcacgttttc
540
agggtcatga tctgcccc gcccggggga tctactgtcc tccagtcac acccctctcc
600

```

ccgcaccgcc ttcctgctgt cttctcttct tcccagaatg aagacatcac cgagccgcag
 660
 agcatcctgg cggctgcaga gaaggctggt atgtctgcag aacaagccca gggacttctg
 720
 gaaaagatcg caacgccaaa ggtgaagaac cagctcaagg agaccactga ggcagcctgc
 780
 agatacggag cctttgggct gcccatcacc gtggcccatg tggatggcca aaccacatg
 840
 ttatttggct ctgaccggat ggagctgctg gcgcacctgc tgggagagaa gtggatgggc
 900

<210> 6124

<211> 300

<212> PRT

<213> Homo sapiens

<400> 6124

Xaa	His	Ala	Cys	Ile	Pro	Gln	Leu	Leu	Gly	Arg	Leu	Arg	Arg	Glu	Asn
1				5					10					15	
Arg	Leu	Asn	Pro	Gly	Gly	Gly	Gly	Cys	Gly	Glu	Leu	Arg	Ser	His	His
		20						25					30		
Cys	Thr	Pro	Ala	Trp	Ala	Thr	Arg	Ala	Lys	Gln	Gln	Glu	Lys	Lys	Lys
		35					40					45			
Glu	Ala	Ala	Leu	Cys	Pro	Lys	Pro	Thr	Ser	Arg	Ser	Pro	Asn	Leu	Gly
	50					55					60				
Pro	Leu	Gly	Leu	Phe	Ser	Leu	Ser	Val	Pro	Asn	Leu	Leu	Leu	Ala	Gly
65				70						75					80
Asn	Lys	Pro	Pro	Gly	Leu	Leu	Pro	Arg	Lys	Gly	Leu	Tyr	Met	Ala	Asn
				85					90					95	
Asp	Leu	Lys	Leu	Leu	Arg	His	His	Leu	Gln	Ile	Pro	Ile	His	Phe	Pro
		100						105					110		
Lys	Asp	Phe	Leu	Ser	Val	Met	Leu	Glu	Lys	Gly	Ser	Leu	Ser	Ala	Met
		115					120					125			
Arg	Phe	Leu	Thr	Ala	Val	Asn	Leu	Glu	His	Pro	Glu	Met	Leu	Glu	Lys
		130				135					140				
Ala	Ser	Arg	Glu	Leu	Trp	Met	Arg	Val	Trp	Ser	Arg	Val	Ser	Val	Gly
145					150					155					160
Leu	Trp	Glu	Ser	Ser	Gly	Arg	Thr	Leu	Asp	Asp	Phe	Leu	Thr	Phe	Pro
				165					170					175	
Arg	His	Val	Phe	Arg	Val	Met	Ile	Leu	Pro	Pro	Pro	Gly	Gly	Ser	Thr
		180						185					190		
Val	Leu	Pro	Val	Thr	Pro	Leu	Ser	Pro	His	Arg	Leu	Pro	Ala	Val	Phe
		195					200					205			
Ser	Ser	Ser	Gln	Asn	Glu	Asp	Ile	Thr	Glu	Pro	Gln	Ser	Ile	Leu	Ala
		210				215					220				
Ala	Ala	Glu	Lys	Ala	Gly	Met	Ser	Ala	Glu	Gln	Ala	Gln	Gly	Leu	Leu
225					230					235					240
Glu	Lys	Ile	Ala	Thr	Pro	Lys	Val	Lys	Asn	Gln	Leu	Lys	Glu	Thr	Thr
				245					250					255	
Glu	Ala	Ala	Cys	Arg	Tyr	Gly	Ala	Phe	Gly	Leu	Pro	Ile	Thr	Val	Ala
		260						265					270		
His	Val	Asp	Gly	Gln	Thr	His	Met	Leu	Phe	Gly	Ser	Asp	Arg	Met	Glu
		275					280					285			
Leu	Leu	Ala	His	Leu	Leu	Gly	Glu	Lys	Trp	Met	Gly				

290

295

300

<210> 6125
 <211> 468
 <212> DNA
 <213> Homo sapiens

<400> 6125
 nctacagtca ctcaggagaa gtcccgcatg gaggttctt acttggctga caagaaaaag
 60
 atgaaacagg acttagagga tgccagtaac aaggcggagg aggagagggc ccgcctggag
 120
 ggagaattga aggggctgca ggagcaaata gcagaaacca aagcccggct tatcacgcag
 180
 cagcatgacg gggcccaaga gcagagtgc catgccttga tgctgcgtga gctccagaag
 240
 ctgctgcagg aggagaggac ccagcgccag gacttggagc ttaggttaga agagacccga
 300
 gaagccttgg caggacgagc atatgcagct gaacagatgg aaggatttga actgcagacc
 360
 aagcagctga cccgtgaggt ggaggagctg aaaagtgaac tgcaggccat tcgagatgag
 420
 aagaatcagc cagacccccg gctgcaagaa cttcaggaag aggccgcc
 468

<210> 6126
 <211> 156
 <212> PRT
 <213> Homo sapiens

<400> 6126
 Xaa Thr Val Thr Gln Glu Lys Ser Arg Met Glu Ala Ser Tyr Leu Ala
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 Asp Lys Lys Lys Met Lys Gln Asp Leu Glu Asp Ala Ser Asn Lys Ala
 20 25 30
 Glu Glu Glu Arg Ala Arg Leu Glu Gly Glu Leu Lys Gly Leu Gln Glu
 35 40 45
 Gln Ile Ala Glu Thr Lys Ala Arg Leu Ile Thr Gln Gln His Asp Arg
 50 55 60
 Ala Gln Glu Gln Ser Asp His Ala Leu Met Leu Arg Glu Leu Gln Lys
 65 70 75 80
 Leu Leu Gln Glu Glu Arg Thr Gln Arg Gln Asp Leu Glu Leu Arg Leu
 85 90 95
 Glu Glu Thr Arg Glu Ala Leu Ala Gly Arg Ala Tyr Ala Ala Glu Gln
 100 105 110
 Met Glu Gly Phe Glu Leu Gln Thr Lys Gln Leu Thr Arg Glu Val Glu
 115 120 125
 Glu Leu Lys Ser Glu Leu Gln Ala Ile Arg Asp Glu Lys Asn Gln Pro
 130 135 140
 Asp Pro Arg Leu Gln Glu Leu Gln Glu Glu Ala Ala
 145 150 155

<210> 6127
 <211> 1900

<212> DNA

<213> Homo sapiens

<400> 6127

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120
cgggcaagag actccaatat ggtgagggcg gcagcagagc tggccctgag ctgcctgcct
180
cacgcccattg cattgaaccc taatgagatc cagcggggcc tggtgagtg caaggaacag
240
gacaacctga tgttgagaa ggcctgcatg gcagtgaag aggcagctaa ggggtggggg
300
gtgtaccctg aagtgttgtt tgaggttgct caccagtggc tctggctata tgagcaaact
360
gcaggtggct catccacagc ccgtgaaggg gctacaagct gtagtgccag tgggatcagg
420
gcaggtgggg aagctgggag gggatgcct gagggtagag ggggcccagg gactgagccg
480
gttacagtgg cagcggcagc agtgacagca gcagccacag tggtgcccg catatcggg
540
gggtctagtt tatacccggg tccaggactg gggcatggcc actcccctgg cctgcacccc
600
tacctgctc tacagcccca cctgcccgtg agccctcagt atctcactca cccagctcac
660
cctgcccacc ccatgcctca catgcccgg cctgcccgtc tccctgtgcc cagctctgca
720
taccacaggg gtgtgcatcc tgcattccta ggggtcagt acccttattc agtgactcct
780
ccctcacttg ctgccactgc tgtgtcttcc cccgttcctt ccatggcacc catcacagta
840
catccctacc acacagagcc agggcttcca ctgcccacca gtgtggcctg tgagttgtgg
900
ggccagggaa cagtgagcag tgtccatcca gcatccacgt ttccagccat ccaaggtgac
960
tactgcctg cctgaccac acagcccagc cctctggtga gcggaggttt tccaccgccc
1020
gaggaggaga cacacagtca gccagtcaat cccacagcc tgcaccacct gcatgctgcc
1080
taccgtgtcg gaatgctggc actggagatg ctgggtcgcc gggcacacaa cgatcacccc
1140
aacaacttct cccgtccccc cccctacact gatgatgtca aatggttgct ggggctggca
1200
gcaaagctgg gagtgaacta cgtgcaccag ttctgtgtgg gggcagccaa gggggtgctg
1260
agcccgtttg tgctgcagga gatcgtcatg gagacgtgc agcggctgag tcccgtcat
1320
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1380
tacatgcagt acatccacca ccgcttgatt cacctgactc ctgcggacta cgacgacttt
1440
gtgaatgcga tccggagtgc ccgcagcgc ttctgcctga cggccatggg catgatgcag
1500

ttcaacgaca tcctacagaa cctcaagcgc agcaaacaga ccaaggagct gtggcagcgg
 1560
 gtctcactcg agatggccac cttctccccc tgagtctttc acccttaggg tcctatacag
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 1680
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 1740
 ggggccaaga tgtctcacac cctagaagcc tagggctggg ggagacagcc ctgtctggga
 1800
 gggggcggtg ggtggcctct ggtatttatt tggcatttat aaatatataa actccttttt
 1860
 tactctagtc gacctgggcc tttcccttct ttccaaattt
 1900

<210> 6128

<211> 530

<212> PRT

<213> Homo sapiens

<400> 6128

Val Ser Trp Ile Thr Gly Gln Ala Xaa Glu Ile Gly Ser Xaa Ser Leu
 1 5 10 15
 Thr Ile Leu Val Glu Cys Trp Asp Gly His Leu Thr Pro Pro Glu Val
 20 25 30
 Ala Ser Leu Ala Asp Arg Ala Ser Arg Ala Arg Asp Ser Asn Met Val
 35 40 45
 Arg Ala Ala Ala Glu Leu Ala Leu Ser Cys Leu Pro His Ala His Ala
 50 55 60
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Asp	Ser	Leu	Ser	Ala	Ser	Thr	Ala	Gln	Ala	Ser	Ser	Ser	Ala	Ala	Ser
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<212> PRT

<213> Homo sapiens

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<211> 2249

<212> DNA

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<210> 6142
<211> 513
<212> PRT
<213> Homo sapiens

<400> 6142

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			20					25					30		
Ala	Ala	Ala	Ala	Ala	Ala	Ala	Gly	Gly	Gln	Leu	Leu	Gly	Asp	Gly	Gly
			35				40					45			
Ser	Pro	Gly	Arg	Thr	Glu	Gln	Pro	Pro	Pro	Ser	Pro	Gln	Ser	Ser	Ser
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Gly	Phe	Leu	Tyr	Arg	Arg	Leu	Lys	Thr	Gln	Glu	Lys	Arg	Glu	Met	Gln
65				70						75				80	
Lys	Glu	Ile	Leu	Ser	Val	Leu	Gly	Leu	Pro	His	Arg	Pro	Arg	Pro	Leu
			85					90						95	
His	Gly	Leu	Gln	Gln	Pro	Gln	Pro	Pro	Ala	Leu	Arg	Gln	Gln	Glu	Glu
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Gln	Gln	Gln	Gln	Gln	Gln	Leu	Pro	Arg	Gly	Glu	Pro	Pro	Pro	Gly	Arg
			115					120					125		
Leu	Lys	Ser	Ala	Pro	Leu	Phe	Met	Leu	Asp	Leu	Tyr	Asn	Ala	Leu	Ser
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145					150					155					160
Trp	Pro	His	Glu	Ala	Ala	Ser	Ser	Ser	Gln	Arg	Arg	Gln	Pro	Pro	Pro
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Gly	Ala	Ala	His	Pro	Leu	Asn	Arg	Lys	Ser	Leu	Leu	Ala	Pro	Gly	Ser
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Leu	Asn	Asp	Ala	Asp	Met	Val	Met	Ser	Phe	Val	Asn	Leu	Val	Glu	Tyr
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Asp	Lys	Glu	Phe	Ser	Pro	Arg	Gln	Arg	His	His	Lys	Glu	Phe	Lys	Phe
225					230					235					240
Asn	Leu	Ser	Gln	Ile	Pro	Glu	Gly	Gly	Val	Val	Thr	Ala	Ala	Glu	Phe
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Arg	Ile	Tyr	Lys	Asp	Cys	Val	Met	Gly	Ser	Phe	Lys	Asn	Gln	Thr	Phe
			260					265					270		
Leu	Ile	Ser	Ile	Tyr	Gln	Val	Leu	Gln	Glu	His	Gln	His	Arg	Asp	Ser
		275					280					285			
Asp	Leu	Phe	Leu	Leu	Asp	Thr	Arg	Val	Val	Trp	Ala	Ser	Glu	Glu	Gly
	290					295					300				
Trp	Leu	Glu	Phe	Asp	Ile	Thr	Ala	Thr	Ser	Asn	Leu	Trp	Val	Val	Thr
305					310					315					320
Pro	Gln	His	Asn	Met	Gly	Leu	Gln	Leu	Ser	Val	Val	Thr	Arg	Asp	Gly
			325						330					335	
Val	His	Val	His	Pro	Arg	Ala	Ala	Gly	Leu	Val	Gly	Arg	Asp	Gly	Pro
			340					345				350			
Tyr	Asp	Lys	Gln	Pro	Phe	Met	Val	Ala	Phe	Phe	Lys	Val	Ser	Glu	Val

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 Pro Lys Gly Tyr Ala Ala Asn Tyr Cys Asp Gly Glu Cys Ser Phe Pro
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<210> 6143
 <211> 1137
 <212> DNA
 <213> Homo sapiens

<400> 6143
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<210> 6144

<211> 141

<212> PRT

<213> Homo sapiens

<400> 6144

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Ser	Thr	Glu	Ser	Leu	Thr	Leu	His	Pro	Arg	Val	Leu	Pro	Leu	Trp	Asn
			20					25					30		
Ser	Gly	Ser	Arg	Gln	Ala	Trp	Val	His	Pro	Pro	Ala	Gln	Pro	Arg	Thr
	35						40					45			
Ala	Gly	Pro	Glu	Leu	Gly	Gly	Gln	Gly	Ile	Pro	Ser	Pro	Gly	Cys	Ala
	50					55					60				
Cys	Gln	Arg	Gly	Glu	Ala	Gly	Gly	Gly	Gly	Asn	Ala	Val	Leu	Pro	Gln
65					70					75				80	
Glu	Ser	Val	Leu	Arg	Ala	Ser	Ala	Val	Gly	Arg	Gly	Ala	Glu	Gly	Pro
				85					90				95		
Gly	Ala	Leu	Thr	Arg	Ser	Gly	Ser	Gly	Ala	Ala	Ser	Ala	Leu	Val	Arg
			100					105					110		
Pro	Gly	Glu	Lys	Gly	Cys	Trp	Cys	Arg	Thr	Ala	Ser	Gly	Ala	Gly	Pro
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<210> 6145

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<212> DNA

<213> Homo sapiens

<400> 6145

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<210> 6146
 <211> 100
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Gln Pro Pro Pro Val Lys Cys Gln Glu Thr Cys Ala Pro Lys Thr Lys
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 Asp Pro Cys Ala Pro Gln Val Lys Lys Gln Cys Pro Pro Lys Asp Thr
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<210> 6147
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<210> 6148

<211> 410

<212> PRT

<213> Homo sapiens

<400> 6148

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Gly Trp Ile Lys Lys Gly Thr Asp Val Asp Val Gly Pro Phe Leu Asn
 35           40           45
Ser Leu Val Gln Glu Gly Glu Trp Glu Arg Ala Ala Val Ala Leu
 50           55           60
Phe Asn Leu Asp Ile Arg Arg Ala Ile Gln Ile Leu Asn Glu Gly Ala
 65           70           75           80
Ser Ser Glu Lys Gly Asp Leu Asn Leu Asn Val Val Ala Met Ala Leu
      85           90           95
Ser Gly Tyr Thr Asp Glu Lys Asn Ser Leu Trp Arg Glu Met Cys Ser
      100           105           110
Thr Leu Arg Leu Gln Leu Asn Asn Pro Tyr Leu Cys Val Met Phe Ala
      115           120           125
Phe Leu Thr Ser Glu Thr Gly Ser Tyr Asp Gly Val Leu Tyr Glu Asn
      130           135           140
Lys Val Ala Val Arg Asp Arg Val Ala Phe Ala Cys Lys Phe Leu Ser
      145           150           155           160
Asp Thr Gln Leu Asn Arg Tyr Ile Glu Lys Leu Thr Asn Glu Met Lys
      165           170           175
Glu Ala Gly Asn Leu Glu Gly Ile Leu Leu Thr Gly Leu Thr Lys Asp
      180           185           190
Gly Val Asp Leu Met Glu Ser Tyr Val Asp Arg Thr Gly Asp Val Gln
      195           200           205
Thr Ala Ser Tyr Cys Met Leu Gln Gly Ser Pro Leu Asp Val Leu Lys
      210           215           220
Asp Glu Arg Val Gln Tyr Trp Ile Glu Asn Tyr Arg Asn Leu Leu Asp
      225           230           235           240
Ala Trp Arg Phe Trp His Lys Arg Ala Glu Phe Asp Ile His Arg Ser
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Lys Leu Asp Pro Ser Ser Lys Pro Leu Ala Gln Val Phe Val Ser Cys
      260           265           270
Asn Phe Cys Gly Lys Ser Ile Ser Tyr Ser Cys Ser Ala Val Pro His
      275           280           285
Gln Gly Arg Gly Phe Ser Gln Tyr Gly Val Ser Gly Ser Pro Thr Lys
      290           295           300
Ser Lys Val Thr Ser Cys Pro Gly Cys Arg Lys Pro Leu Pro Arg Cys
      305           310           315           320
Ala Leu Cys Leu Ile Asn Met Gly Thr Pro Val Ser Ser Cys Pro Gly
      325           330           335
Gly Thr Lys Ser Asp Glu Lys Val Asp Leu Ser Lys Asp Lys Lys Leu
      340           345           350
Ala Gln Phe Asn Asn Trp Phe Thr Trp Cys His Asn Cys Arg His Gly
      355           360           365
Gly His Ala Gly His Met Leu Ser Trp Phe Arg Asp His Ala Glu Cys
      370           375           380
Pro Val Ser Ala Cys Thr Cys Lys Cys Met Gln Leu Asp Thr Thr Gly

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5332

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<210> 6150

<211> 508

<212> PRT

<213> Homo sapiens

<400> 6150

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			20					25					30		
Lys	Val	Ser	Leu	Thr	Lys	Thr	Pro	Lys	Leu	Glu	Arg	Gly	Asp	Gly	Gly
			35				40					45			
Lys	Glu	Val	Arg	Glu	Arg	Ala	Ser	Lys	Arg	Lys	Leu	Pro	Phe	Thr	Ala
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Gly	Ala	Asn	Gly	Glu	Gln	Lys	Asp	Ser	Asp	Thr	Glu	Lys	Gln	Gly	Pro
65					70					75				80	
Glu	Arg	Lys	Arg	Ile	Lys	Lys	Glu	Pro	Val	Thr	Arg	Lys	Ala	Gly	Leu
				85				90						95	
Leu	Phe	Gly	Met	Gly	Leu	Ser	Gly	Ile	Arg	Ala	Gly	Tyr	Pro	Leu	Ser
			100					105					110		
Glu	Arg	Gln	Gln	Val	Ala	Leu	Leu	Met	Gln	Met	Thr	Ala	Glu	Glu	Ser
			115				120					125			
Ala	Asn	Ser	Pro	Val	Asp	Thr	Thr	Pro	Lys	His	Pro	Ser	Gln	Ser	Thr
			130			135					140				
Val	Cys	Gln	Lys	Gly	Thr	Pro	Asn	Ser	Ala	Ser	Lys	Thr	Lys	Asp	Lys
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				165				170						175	
Ile	Arg	Gly	Asp	Ala	Arg	Arg	Ile	Lys	Glu	Leu	Ile	Ser	Glu	Gly	Ala
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Asp	Val	Asn	Val	Lys	Asp	Phe	Ala	Gly	Trp	Thr	Ala	Leu	His	Glu	Ala

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Cys	Asn	Arg	Gly	Tyr	Tyr	Asp	Val	Ala	Lys	Gln	Leu	Leu	Ala	Ala	Gly
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225					230					235					240
Ala	Ala	Asn	Asn	Gly	His	Tyr	Lys	Val	Val	Lys	Leu	Leu	Leu	Arg	Tyr
			245						250					255	
Gly	Gly	Asn	Pro	Gln	Gln	Ser	Asn	Arg	Lys	Gly	Glu	Thr	Pro	Leu	Lys
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Asp	Glu	Gln	Asp	Arg	Val	Pro	Pro	Val	Asp	Asp	Lys	His	Leu	Leu	Lys
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Lys	Asp	Tyr	Arg	Lys	Glu	Thr	Lys	Ser	Asn	Ser	Phe	Ile	Ser	Ile	Pro
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Lys	Ala	Ser	His	Arg	Ile	Leu	Ser	Asp	Thr	Ser	Asp	Glu	Glu	Asp	Ala
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<211> 648

<212> DNA

<213> Homo sapiens

<400> 6151

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<210> 6152
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<400> 6154

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          85           90           95
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Val His Ser Tyr Cys Glu His Gly Gly Phe Val Thr Tyr Val Asp Phe
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His Pro Ser Gly Thr Cys Ile Ala Ala Ala Gly Met Asp Asn Thr Val
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Lys Val Trp Asp Val Arg Thr His Arg Leu Leu Gln His Tyr Gln Leu
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His Ser Ala Ala Val Asn Gly Leu Ser Phe His Pro Ser Gly Asn Tyr
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Pro Gln Thr Leu Thr Ser Thr Leu Glu His Ile Val Gly Gln Leu Asp
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<212> PRT
<213> Homo sapiens

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<210> 6158

<211> 455

<212> PRT

<213> Homo sapiens

<400> 6158

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<211> 4310

<212> DNA

<213> Homo sapiens

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<211> 551

<212> PRT

<213> Homo sapiens

<400> 6160

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 85 90 95
 Gly Tyr Leu Ser Gln Gln Gln Asn Met Met Gln Asp Tyr Val Arg Thr
 100 105 110
 Gly Thr Tyr Gln Arg Ala Ile Leu Gln Asn His Thr Asp Phe Lys Asp
 115 120 125
 Lys Ile Val Leu Asp Val Gly Cys Gly Ser Gly Ile Leu Ser Phe Phe
 130 135 140
 Ala Ala Gln Ala Gly Ala Arg Lys Ile Tyr Ala Val Glu Ala Ser Thr
 145 150 155 160
 Met Ala Gln His Ala Glu Val Leu Val Lys Ser Asn Asn Leu Thr Asp
 165 170 175
 Arg Ile Val Val Ile Pro Gly Lys Val Glu Glu Val Ser Leu Pro Glu
 180 185 190
 Gln Val Asp Ile Ile Ile Ser Glu Pro Met Gly Tyr Met Leu Phe Asn
 195 200 205
 Glu Arg Met Leu Glu Ser Tyr Leu His Ala Lys Lys Tyr Leu Lys Pro
 210 215 220
 Ser Gly Asn Met Phe Pro Thr Ile Gly Asp Val His Leu Ala Pro Phe
 225 230 235 240
 Thr Asp Glu Gln Leu Tyr Met Glu Gln Phe Thr Lys Ala Asn Phe Trp
 245 250 255
 Tyr Gln Pro Ser Phe His Gly Val Asp Leu Ser Ala Leu Arg Gly Ala
 260 265 270
 Ala Val Asp Glu Tyr Phe Arg Gln Pro Val Val Asp Thr Phe Asp Ile
 275 280 285
 Arg Ile Leu Met Ala Lys Ser Val Lys Tyr Thr Val Asn Phe Leu Glu
 290 295 300
 Ala Lys Glu Gly Asp Leu His Arg Ile Glu Ile Pro Phe Lys Phe His
 305 310 315 320
 Met Leu His Ser Gly Leu Val His Gly Leu Ala Phe Trp Phe Asp Val
 325 330 335
 Ala Phe Ile Gly Ser Ile Met Thr Val Trp Leu Ser Thr Ala Pro Thr
 340 345 350
 Glu Pro Leu Thr His Trp Tyr Gln Val Arg Cys Leu Phe Gln Ser Pro
 355 360 365
 Leu Phe Ala Lys Ala Gly Asp Thr Leu Ser Gly Thr Cys Leu Leu Ile
 370 375 380
 Ala Asn Lys Arg Gln Ser Tyr Asp Ile Ser Ile Val Ala Gln Val Asp
 385 390 395 400
 Gln Thr Gly Ser Lys Ser Ser Asn Leu Leu Asp Leu Lys Asn Pro Phe
 405 410 415
 Phe Arg Tyr Thr Gly Thr Thr Pro Ser Pro Pro Pro Gly Ser His Tyr
 420 425 430
 Thr Ser Pro Ser Glu Asn Met Trp Asn Thr Gly Ser Thr Tyr Asn Leu
 435 440 445
 Ser Ser Gly Met Ala Val Ala Gly Met Pro Thr Ala Tyr Asp Leu Ser

450 455 460
 Ser Val Ile Ala Ser Gly Ser Ser Val Gly His Asn Asn Leu Ile Pro
 465 470 475 480
 Leu Ala Asn Thr Gly Ile Val Asn His Thr His Ser Arg Met Gly Ser
 485 490 495
 Ile Met Ser Thr Gly Ile Val Gln Gly Ser Ser Gly Ala Gln Gly Ser
 500 505 510
 Gly Gly Gly Ser Thr Ser Ala His Tyr Ala Val Asn Ser Gln Phe Thr
 515 520 525
 Met Gly Gly Pro Ala Ile Ser Met Ala Ser Pro Met Ser Ile Pro Thr
 530 535 540
 Asn Thr Met His Tyr Gly Ser
 545 550

<210> 6161

<211> 1489

<212> DNA

<213> Homo sapiens

<400> 6161

ggctgcatga tcttcagcag attcagtaca gagggaagtg agctgtggga gaggaaggag
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 gatgggggaa atggcaagaa aaggagcacc ctgcttagaa agggaacgga gccgggtgtg
 120
 gtggctcacg cctgcaatcc anacaccttg ggaggccgaa gcaaggagat cacctgagcc
 180
 caagagtttg agaccaccca catagcaaga ccccatctct attttttggg aaaaaaaaaa
 240
 aaaagcagca accagcagga tgggtggaaa aaagttgctg aaggctcttc aagatcctct
 300
 ctgcctgctc cttctctcac agagggacag gggaggggtga tgagtcagtg gactgaatgt
 360
 ccccatgggg atgaaggatg gttgggggtca ggttcctaga gggagggctg gaaggagggg
 420
 aggagatggc cagagaagga tgtaggacac agagggtgcc cctgggatca ccaagagggt
 480
 caggactggc cagaggaagg agaggagatc aaggcaagca tgaggcactt gggagatgca
 540
 tctgtgcctg cacacagctg aaatccccag gaaataagac gggagcaggg tgggtttctg
 600
 cagccgaggt gagaccaaag tgccagctca ctgccaccct cagtaaagac taacttgccc
 660
 ttccccacaa ctccccctcc agaagtagct tgctctctc tgcctgccac acatcggggg
 720
 gctcagggaa agtccccctt ccctggacag ctagtgttcc ctaggccaag gccagtcctt
 780
 gcagagatga ggagctggga aatccccctc tcccatcccg cacgtccacg cgtgccagat
 840
 cctgtgctgc gggcttttca cacacagcct cttagacgct tagcctgtga ggcgggtgct
 900
 gttgtccttc cttcccattt tgcaactgag caaacagcct gaaagagaca aaaaccaggt
 960
 agttagcatg accccaaagc cactccctgg tctacgctgt tctgcagcct gagcctgggg
 1020

tggccaggtg gggttgtgca gtgagggggg gaaggagaat agccccaaa aatgctgccg
 1080
 gaatggtaaa gggcctggac tgcaaagcta gtgacttgag ctttattttg tggcactgga
 1140
 ggttttccca gtcattgtaa tgatacaatc agatttgcgt tgtcttcaag ttaccatggt
 1200
 aaccgtactt ccacccacca agagtggatt ggagaaggca aaactagggc agagaagcca
 1260
 gggagtgttg agaaggtctg aacccagaca gtgggcagct gggccccaag acggatgggg
 1320
 gactccagaa gcgtggagct ggcagagaga aacctgcccg gggcatcaga gaaaagggag
 1380
 actgtgcagg aacagagtag atgaggtggg gaacctttgg gtaagaagag ctgaatcagg
 1440
 agcattgagg cagcggtttt caaacctcag aagcaacagc agggccggc
 1489

<210> 6162
 <211> 58
 <212> PRT
 <213> Homo sapiens

<400> 6162
 Gly Cys Met Ile Phe Ser Arg Phe Ser Thr Glu Gly Ser Glu Leu Trp
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 Glu Arg Lys Glu Asp Gly Gly Asn Gly Lys Lys Arg Ser Thr Leu Leu
 20 25 30
 Arg Lys Gly Thr Glu Pro Gly Val Val Ala His Ala Cys Asn Pro Xaa
 35 40 45
 Thr Leu Gly Gly Arg Ser Lys Glu Ile Thr
 50 55

<210> 6163
 <211> 713
 <212> DNA
 <213> Homo sapiens

<400> 6163
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 gagatgagtc cagctgcggt cagagccatg ggatgtgggt cactgtgacc cagtgggtca
 120
 caggtgctga gcaaggaagg gctgggaggg tcaagcaaaa tctacaagaa aaatctaaa
 180
 gggcccagcc tctgccagga aaagcaggcc tggctctgct gaaaccccaa tcacgctctg
 240
 atggataccg gtacctgggc aaggataccg tggatggact tgattcttct ctctgaaa
 300
 gtacgagaag gtgcatgcgg ggatttcggc tgcctgaaaa gcaaccctct aaaacccgag
 360
 tgtcattttt agaatcaaaa aggaaggaag gcagtggctg gctgcactgg tcagtaacga
 420
 gatctggagc ttttcgcctt aaggtcactg tttaaaactc tgccctgggt cagttgtaac
 480

agaaagtcac aactccctca caggcatcag ggtgcaactt tgaatgccaa gaggggctgt
 540
 gtctgttggt taccacgcgg cgagctcccg ggacacctcc tgacacctcc tgacagtgtc
 600
 tctttctcta ggagtctcct ctcttccac ccaccatggc ggcctggcct ggaggggagg
 660
 cattggggac tgagtccttc cccgacaggg agtctctctc cccctggcg cgc
 713

<210> 6164
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 6164
 Met Trp Val Thr Val Thr Gln Trp Val Thr Gly Ala Glu Gln Gly Arg
 1 5 10 15
 Ala Gly Arg Leu Lys Gln Asn Leu Gln Glu Lys Ser Lys Gly Ala Gln
 20 25 30
 Pro Leu Pro Gly Lys Ala Gly Leu Ala Leu Leu Lys Pro Gln Ser Arg
 35 40 45
 Ser Asp Gly Tyr Arg Tyr Leu Gly Lys Asp Thr Val Asp Gly Leu Asp
 50 55 60
 Ser Ser Leu Leu Lys Cys Thr Arg Arg Cys Met Arg Gly Phe Arg Leu
 65 70 75 80
 Pro Glu Lys Gln Pro Ser Lys Thr Arg Val Ser Phe Leu Glu Ser Lys
 85 90 95
 Arg Lys Glu Gly Ser Gly Trp Leu His Trp Ser Val Thr Arg Ser Gly
 100 105 110
 Ala Phe Arg Leu Lys Val Thr Val
 115 120

<210> 6165
 <211> 1004
 <212> DNA
 <213> Homo sapiens

<400> 6165
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 aagctgttcg gggctggagg gggtaaggcc ggcaagggcg gcccgaaccc ccaggaggcc
 120
 atccagcggc tgcgggacac ggaagagatg ttaagcaaga aacaggagtt cctggagaag
 180
 aaaatcgagc aggagctgac ggccgccaag aagcacggca ccaaaaacaa gcgcgcggcc
 240
 ctccaggcac tgaagcgtaa gaagaggtat gagaagcagc tggcgagat cgacggcaca
 300
 ttatcaacca tcgagttcca gcgggaggcc ctggagaatg ccaacaccaa caccgaggtg
 360
 ctcaagaaca tgggctatgc cgccaaggcc atgaaggcgg cccatgacaa catggacatc
 420
 gataaagttg atgagttaat gcaggacatt gctgaccagc aagaacttgc agaggagatt
 480

tcaacagcaa tttcgaaacc tgtagggttt ggagaagagt ttgacgagga tgagctcatg
 540
 gcggaattag aagaactaga acaggaggaa ctagacaaga atttgctgga aatcagtgga
 600
 cccgaaacag tccctctacc aaatgttccc tctatagccc taccatcaaa acccgccaag
 660
 aagaaagaag aggaggacga cgacatgaag gaattggaga actgggctgg atccatgtaa
 720
 tgggggtccag cgctggctgg gccagacag actgtggtgg cctgcgcagc gagcaggcgt
 780
 gtgcgtgtgt ggggcaggca ggatgtggtg caggcaggtt ccatcgcttt cgactctcac
 840
 tccaaagcag tagggccgcg ttgctgctca ctctctgcat agcatggtct gcacctggga
 900
 gttggccggg gggagggggg cgagcgggct ggcacgtgcc tgctgtttat aatgttgaat
 960
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 1004

<210> 6166

<211> 239

<212> PRT

<213> Homo sapiens

<400> 6166

Pro	Ser	Arg	Ile	Gly	Arg	Arg	Arg	Pro	Ala	Arg	Arg	Ala	Ala	Thr	Met
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Ser	Val	Phe	Gly	Lys	Leu	Phe	Gly	Ala	Gly	Gly	Gly	Lys	Ala	Gly	Lys
			20					25					30		
Gly	Gly	Pro	Thr	Pro	Gln	Glu	Ala	Ile	Gln	Arg	Leu	Arg	Asp	Thr	Glu
			35				40					45			
Glu	Met	Leu	Ser	Lys	Lys	Gln	Glu	Phe	Leu	Glu	Lys	Lys	Ile	Glu	Gln
			50			55					60				
Glu	Leu	Thr	Ala	Ala	Lys	Lys	His	Gly	Thr	Lys	Asn	Lys	Arg	Ala	Ala
65					70					75				80	
Leu	Gln	Ala	Leu	Lys	Arg	Lys	Lys	Arg	Tyr	Glu	Lys	Gln	Leu	Ala	Gln
				85				90					95		
Ile	Asp	Gly	Thr	Leu	Ser	Thr	Ile	Glu	Phe	Gln	Arg	Glu	Ala	Leu	Glu
			100					105					110		
Asn	Ala	Asn	Thr	Asn	Thr	Glu	Val	Leu	Lys	Asn	Met	Gly	Tyr	Ala	Ala
			115				120					125			
Lys	Ala	Met	Lys	Ala	Ala	His	Asp	Asn	Met	Asp	Ile	Asp	Lys	Val	Asp
			130			135					140				
Glu	Leu	Met	Gln	Asp	Ile	Ala	Asp	Gln	Gln	Glu	Leu	Ala	Glu	Glu	Ile
145				150						155				160	
Ser	Thr	Ala	Ile	Ser	Lys	Pro	Val	Gly	Phe	Gly	Glu	Glu	Phe	Asp	Glu
			165					170					175		
Asp	Glu	Leu	Met	Ala	Glu	Leu	Glu	Glu	Leu	Glu	Gln	Glu	Glu	Leu	Asp
			180				185					190			
Lys	Asn	Leu	Leu	Glu	Ile	Ser	Gly	Pro	Glu	Thr	Val	Pro	Leu	Pro	Asn
			195				200					205			
Val	Pro	Ser	Ile	Ala	Leu	Pro	Ser	Lys	Pro	Ala	Lys	Lys	Lys	Glu	Glu
			210				215					220			
Glu	Asp	Asp	Asp	Met	Lys	Glu	Leu	Glu	Asn	Trp	Ala	Gly	Ser	Met	

225

230

235

<210> 6167

<211> 1220

<212> DNA

<213> Homo sapiens

<400> 6167

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tggaactcc aacagttaag agattctcat gtattccatg aaataaaaag caaagaaaaa
120
tcaaacttgt cttaatgaga tggaagtgtt ggatcaaaca ctgattgagc tgttctatgt
180
cctccacttc cccagtgcct tctctcctcc cgggtctgcg cggacgcggc ctcttacct
240
catttgtcct cgccccctcc cgtccctcta cgcgttttgg tccctgtttg gtgctttctg
300
tttgagcta cggcagttag tatgtatgtg acggaccccg agtcacccgc ggctggggac
360
ccctgcctac cctccgtctc gccagccgag ctgtggaact agcgcgtgcc ccctcgccga
420
cctcggcgtc tccggctccg ccctcacttg tggtagggcg cagctcctgg tccctcagct
480
gcgcgcgcc ccacgcggcc gggctgcggg tctagggggg cgcctctcc ctggctttcc
540
aaggggctaag gtcgtgattc tagggcggtt gggcgccag ggcctcggtg ggggtggcgt
600
gtctgccctt tttatctccc cgcaaggccc ccagtcttct agggaaagcca gtcagtgaag
660
cgcgagggtc cgggcgcgcc gagagagagt ccagtctttg aggaccgagt agtcctgggc
720
cacctcccgc ctctgctgtc agaagcagca gctgccgccg tggaatccaa aatttcggga
780
gctgtgacct tttcctcatg taaaacgagt agtcttggac gatctgggca taggaaccaa
840
tcagaaacaa tcgcttcagc aatcaagacc attgttcac atggaggaac ccatggatac
900
ctctgagcct ctatctgcat taccattcac tgggcagcag tcttttgagc caagtggcaa
960
atctggacag tatccatcga tgcagatgaa ccacatccag gcactgggga agtggaggac
1020
atagaacagc tcaatcagtg tttgatccaa cacttccatc tcattaagac aagtttgatt
1080
tttctttgct ttttatttca tggaatacat gagaatctct taactgttgg agtttccaag
1140
gaggcatacc tcatgacttc agttaatgga aagaacaaaa ctaaaatgct gtatggccaa
1200
agccacaaaag ggaaggatcc
1220

<210> 6168

<211> 90

<212> PRT

<213> Homo sapiens

<400> 6168

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Ala Lys Trp Gln Ile Trp Thr Val Ser Ile Asp Ala Asp Glu Pro His
 1             5             10             15
Pro Gly Thr Gly Glu Val Glu Asp Ile Glu Gln Leu Asn Gln Cys Leu
          20             25             30
Ile Gln His Phe His Leu Ile Lys Thr Ser Leu Ile Phe Leu Cys Phe
          35             40             45
Leu Phe His Gly Ile His Glu Asn Leu Leu Thr Val Gly Val Ser Lys
          50             55             60
Glu Ala Tyr Leu Met Thr Ser Val Asn Gly Lys Asn Lys Thr Lys Met
65             70             75             80
Leu Tyr Gly Gln Ser His Lys Gly Lys Asp
          85             90

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<210> 6169

<211> 720

<212> DNA

<213> Homo sapiens

<400> 6169

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tgagggcttc gatcccttct ctgatttgct gtcagccatg aacggatgga tgtgatgcct
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gctagccaaa aggcttcct ctgtgtgttg cagtccctgtg gcattatgca tgccccctcc
120
cagtgacccc aggcttttta tggctgtgaa acacgttaaa atttcagggt aagacgtgac
180
cttttgaggt gactataact gaagattgct ttacagaagc ccaaaaaggt tttttgagtc
240
atgatgcaag aatctgggac tgagacaaaa agtaacgggt cagccatcca gaatgggtcg
300
ggcggcagca accacttact agagtgcggc ggtcttcggg aggggcggtc caacggagag
360
acgccggccg tggacatcgg ggcagctgac ctgcgccacg cccagcagca gcagcaacag
420
tggcatctca taaaccatca gccctctagg agtcccagca gttggcttaa gagactaatt
480
tcaagccctt gggagtggga agtcctgcag gtcccttggt gggagcagtt gctgagacga
540
agatgagtgg acctgtgtgt cagcctaacc cttccccatt ttgaataaaa ttattctttg
600
gagaaatggt tcccactgct ttcattgcaa aataaaaatt aaacgaaaaa cagcttaagc
660
ctgtgaagaa ggaaatactg agctagccag caaaagagag aaagaagagg aggggagagg
720

```

<210> 6170

<211> 101

<212> PRT

<213> Homo sapiens

<400> 6170

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Met Met Gln Glu Ser Gly Thr Glu Thr Lys Ser Asn Gly Ser Ala Ile

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Gln	Asn	Gly	Ser	Gly	Gly	Ser	Asn	His	Leu	Leu	Glu	Cys	Gly	Gly
			20				25					30		
Arg	Glu	Gly	Arg	Ser	Asn	Gly	Glu	Thr	Pro	Ala	Val	Asp	Ile	Gly
		35				40					45			
Ala	Asp	Leu	Ala	His	Ala	Gln	Gln	Gln	Gln	Gln	Gln	Trp	His	Leu
	50				55			60						
Asn	His	Gln	Pro	Ser	Arg	Ser	Pro	Ser	Ser	Trp	Leu	Lys	Arg	Leu
65					70			75				80		
Ser	Ser	Pro	Trp	Glu	Leu	Glu	Val	Leu	Gln	Val	Pro	Cys	Gly	Glu
			85				90				95			
Leu	Leu	Arg	Arg	Arg										
			100											

<210> 6171

<211> 1130

<212> DNA

<213> Homo sapiens

<400> 6171

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nncccgctag gagttcctag taaagtggcg ggagccgcag ctatggagcc gcaggaggag
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agagaaacgc aggttgctgc gtggttaaaa aaaatatttg gagatcatcc tattccacag
120
tatgaggtga acccacggac cacagagatt ttacatcacc tttcagaacg caacagggtc
180
cgggacaggg atgtctacct ggtaatagag gacttgaagc agaaagcaag tgaatacgag
240
tcagaagcca agtatcttca agaccttctc atggagagtg tgaatttttc ccccgccaat
300
ctctctagca ctggttccag gtatctgaat gctttggttg acagtgcggt ggcccttgaa
360
acaaaggata cctcgctagc tagttttatc cctgcagtga atgatttgac ctctgatctc
420
tttcgtacca aatccaaaag tgaagaaatc aagattgaac tggaaaaact tgaaaaaaat
480
ttaactgcaa ctttagtatt agaaaaatgt ctacaagagg atgtcaagaa agcagagttg
540
catctgtcta cagaaagggc caaagttgat aatcgctgtc agaacatgga ctttctaaaa
600
gcaaagtcag aggaattcag atttggaaatc aaggctgcag aggagcaact ttcagccaga
660
ggcatggatg cttctctgtc tcatcagtcc ttagtagcac tatcagagaa actggcaaga
720
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780
aatccgtctc ttgctcaagt gaaaattgaa gaagcaaagc gagaactaga tagcattgaa
840
gctgaactta caagaagagt agacatgatg gaactgtgac aaaagccaaa taaacatcct
900
tttccctaac aaagtaaatt gaataggact ttacagagtt ctttttctc ttggcatttc
960
ctaataacaa aactttctgt gttcttagat tacagaatat cataattgat agaatatggt
1020

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ttcttactgt gtgttgcat tttgtgccca aatacatagt tttcatatta aaaagccttt
1080

tctcttaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
1130

<210> 6172

<211> 292

<212> PRT

<213> Homo sapiens

<400> 6172

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Pro	Gln	Glu	Glu	Arg	Glu	Thr	Gln	Val	Ala	Ala	Trp	Leu	Lys	Lys	Ile
			20					25					30		
Phe	Gly	Asp	His	Pro	Ile	Pro	Gln	Tyr	Glu	Val	Asn	Pro	Arg	Thr	Thr
			35					40					45		
Glu	Ile	Leu	His	His	Leu	Ser	Glu	Arg	Asn	Arg	Val	Arg	Asp	Arg	Asp
			50					55				60			
Val	Tyr	Leu	Val	Ile	Glu	Asp	Leu	Lys	Gln	Lys	Ala	Ser	Glu	Tyr	Glu
65					70					75					80
Ser	Glu	Ala	Lys	Tyr	Leu	Gln	Asp	Leu	Leu	Met	Glu	Ser	Val	Asn	Phe
				85					90					95	
Ser	Pro	Ala	Asn	Leu	Ser	Ser	Thr	Gly	Ser	Arg	Tyr	Leu	Asn	Ala	Leu
			100					105					110		
Val	Asp	Ser	Ala	Val	Ala	Leu	Glu	Thr	Lys	Asp	Thr	Ser	Leu	Ala	Ser
			115					120					125		
Phe	Ile	Pro	Ala	Val	Asn	Asp	Leu	Thr	Ser	Asp	Leu	Phe	Arg	Thr	Lys
			130				135				140				
Ser	Lys	Ser	Glu	Glu	Ile	Lys	Ile	Glu	Leu	Glu	Lys	Leu	Glu	Lys	Asn
145					150					155					160
Leu	Thr	Ala	Thr	Leu	Val	Leu	Glu	Lys	Cys	Leu	Gln	Glu	Asp	Val	Lys
				165					170					175	
Lys	Ala	Glu	Leu	His	Leu	Ser	Thr	Glu	Arg	Ala	Lys	Val	Asp	Asn	Arg
			180					185					190		
Arg	Gln	Asn	Met	Asp	Phe	Leu	Lys	Ala	Lys	Ser	Glu	Glu	Phe	Arg	Phe
			195				200					205			
Gly	Ile	Lys	Ala	Ala	Glu	Glu	Gln	Leu	Ser	Ala	Arg	Gly	Met	Asp	Ala
			210				215				220				
Ser	Leu	Ser	His	Gln	Ser	Leu	Val	Ala	Leu	Ser	Glu	Lys	Leu	Ala	Arg
225					230					235					240
Leu	Lys	Gln	Gln	Thr	Ile	Pro	Leu	Lys	Lys	Leu	Glu	Ser	Tyr	Leu	
				245					250					255	
Asp	Leu	Met	Pro	Asn	Pro	Ser	Leu	Ala	Gln	Val	Lys	Ile	Glu	Glu	Ala
			260					265					270		
Lys	Arg	Glu	Leu	Asp	Ser	Ile	Glu	Ala	Glu	Leu	Thr	Arg	Arg	Val	Asp
			275				280						285		
Met	Met	Glu	Leu												
			290												

<210> 6173

<211> 1483

<212> DNA

<213> Homo sapiens

<400> 6173

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120
caaggcctgt tgatgcagcc atgggcgtgg ctacagcttg cagagaactc cctcttggcc
180
aaggttttta tcaccaagca gggctatgcc ttgttggttt cagatcttca acagggtgtg
240
catgaacagg tggacactag tgtggtcagc cagcgagcca aggagctgaa caagcggctc
300
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420
ctacgggtgc gaagtgcgct ctctggcctc cccttctatt ggaatttcca ctgcatgcta
480
gctagtcctt ccctggcttc ccaacatttg attcgtcttc tgatgggcat gagtctggca
540
ttacagtgcc aagtgcggga gctagcaacg ttacttcata tgaaagacct agagatccaa
600
gactaccagg agagtggggc tacgctgatt cgagatcgat tgaagacaga accatttgaa
660
gaaaattcct tcttgggaaca atttatgata gagaaactgc cagaggcatg cagcattggg
720
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<210> 6174

<211> 299
 <212> PRT
 <213> Homo sapiens

<400> 6174

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Gln Leu Ala Glu Asn Ser Leu Leu Ala Lys Val Phe Ile Thr Lys Gln
      20              25              30
Gly Tyr Ala Leu Leu Val Ser Asp Leu Gln Gln Val Trp His Glu Gln
      35              40              45
Val Asp Thr Ser Val Val Ser Gln Arg Ala Lys Glu Leu Asn Lys Arg
      50              55              60
Leu Thr Ala Pro Pro Ala Ala Phe Leu Cys His Leu Asp Asn Leu Leu
      65              70              75              80
Arg Pro Leu Leu Lys Asp Ala Ala His Pro Ser Glu Ala Thr Phe Ser
      85              90              95
Cys Asp Cys Val Ala Asp Ala Leu Ile Leu Arg Val Arg Ser Glu Leu
      100             105             110
Ser Gly Leu Pro Phe Tyr Trp Asn Phe His Cys Met Leu Ala Ser Pro
      115             120             125
Ser Leu Val Ser Gln His Leu Ile Arg Pro Leu Met Gly Met Ser Leu
      130             135             140
Ala Leu Gln Cys Gln Val Arg Glu Leu Ala Thr Leu Leu His Met Lys
      145             150             155             160
Asp Leu Glu Ile Gln Asp Tyr Gln Glu Ser Gly Ala Thr Leu Ile Arg
      165             170             175
Asp Arg Leu Lys Thr Glu Pro Phe Glu Glu Asn Ser Phe Leu Glu Gln
      180             185             190
Phe Met Ile Glu Lys Leu Pro Glu Ala Cys Ser Ile Gly Asp Gly Lys
      195             200             205
Pro Phe Val Met Asn Leu Gln Asp Leu Tyr Met Ala Val Thr Thr Gln
      210             215             220
Glu Val Gln Val Gly Gln Lys His Gln Gly Ala Gly Asp Pro His Thr
      225             230             235             240
Ser Asn Ser Ala Ser Leu Gln Gly Ile Asp Ser Gln Cys Val Asn Gln
      245             250             255
Pro Glu Gln Leu Val Ser Ser Ala Pro Thr Leu Ser Ala Pro Glu Lys
      260             265             270
Glu Ser Thr Gly Thr Ser Gly Pro Leu Gln Arg Pro Gln Leu Ser Lys
      275             280             285
Val Lys Arg Lys Asn Pro Arg Gly Leu Phe Ser
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<210> 6175
 <211> 349
 <212> DNA
 <213> Homo sapiens

<400> 6175

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120

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aaaactgttc agtttggtgg aactgtgaca gaagtcttgc tgaagtacaa aaagggtgaa
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 acaaagact ttgagttggt gaagaaccag ctgttagatc cagacataaa gagattgcct
 240
 tggttgaata gaagtcaaac agtagtggaag gagtatttgg cttttcttgg taatcttgta
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<210> 6176
 <211> 90
 <212> PRT
 <213> Homo sapiens

<400> 6176
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 Gly Glu Thr Asn Asp Phe Glu Leu Leu Lys Asn Gln Leu Leu Asp Pro
 35 40 45
 Asp Ile Lys Arg Leu Pro Trp Leu Asn Arg Ser Gln Thr Val Val Glu
 50 55 60
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 65 70 75 80
 Leu Arg Pro Cys Leu Ser Met Ile Ala Ser
 85 90

<210> 6177
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 <212> DNA
 <213> Homo sapiens

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<210> 6178

<211> 310

<212> PRT

<213> Homo sapiens

<400> 6178

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		20					25					30			
Arg	Asn	Ala	Leu	Glu	Asn	Ile	Arg	Lys	Glu	Met	Lys	Leu	Leu	Glu	Gln
		35					40					45			
Ala	Gly	Ser	Leu	Lys	Gly	Ser	Leu	Ser	Val	Glu	Glu	Gln	Leu	Ser	Leu
	50				55					60					
Ile	Ser	Gly	Cys	Pro	Asn	Ile	Gln	Glu	Ala	Val	Glu	Gly	Ala	Met	His
65				70				75						80	
Ile	Gln	Glu	Cys	Val	Pro	Glu	Asp	Leu	Glu	Leu	Lys	Lys	Lys	Ile	Phe
			85				90						95		
Ala	Gln	Leu	Asp	Ser	Ile	Ile	Asp	Asp	Arg	Val	Ile	Leu	Ser	Ser	Ser
		100					105					110			
Thr	Ser	Cys	Leu	Met	Pro	Ser	Lys	Leu	Phe	Ala	Gly	Leu	Val	His	Val

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      115              120              125
Lys Gln Cys Ile Val Ala His Pro Val Asn Pro Pro Tyr Tyr Ile Pro
      130              135              140
Leu Val Glu Leu Val Pro His Pro Glu Thr Ala Pro Thr Thr Val Asp
      145              150              155              160
Arg Thr His Ala Leu Met Lys Lys Ile Gly Xaa Val Pro His Ala Ser
      165              170              175
Pro Glu Gly Gly Gly Arg Leu Arg Ser Glu Pro Pro Ala Ile Cys Asn
      180              185              190
His Gln Arg Gly Leu Ala Ala Ser Gly Gly Arg Asn Xaa Cys Leu Leu
      195              200              205
Val Thr Trp Xaa Leu Val Met Ser Glu Gly Leu Gly Met Arg Tyr Ala
      210              215              220
Phe Ile Gly Pro Leu Glu Thr Met His Leu Asn Ala Glu Gly Met Leu
      225              230              235              240
Ser Tyr Cys Asp Arg Tyr Ser Glu Gly Ile Lys His Val Leu Gln Thr
      245              250              255
Phe Gly Pro Ile Pro Glu Phe Ser Arg Ala Thr Ala Glu Lys Val Asn
      260              265              270
Gln Asp Met Cys Met Lys Val Pro Asp Asp Pro Glu His Leu Ala Ala
      275              280              285
Arg Arg Gln Trp Arg Asp Glu Cys Leu Met Arg Leu Ala Lys Leu Lys
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Ser Gln Val Gln Pro Gln
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<210> 6179

<211> 2940

<212> DNA

<213> Homo sapiens

<400> 6179

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360
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660

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<210> 6180

<211> 751

<212> PRT

<213> Homo sapiens

<400> 6180

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			20					25					30		
Trp	Arg	Xaa	Tyr	Leu	Thr	Asp	Glu	Phe	Ala	Lys	Gly	Arg	Lys	Val	Ala
		35				40					45				
Asp	Leu	Tyr	Glu	Leu	Val	Gln	Tyr	Ala	Gly	Asn	Ile	Ile	Pro	Arg	Leu
	50				55					60					
Tyr	Leu	Leu	Ile	Thr	Val	Gly	Val	Val	Tyr	Val	Lys	Ser	Phe	Pro	Gln
	65			70					75					80	
Ser	Arg	Lys	Asp	Ile	Leu	Lys	Asp	Leu	Val	Glu	Met	Cys	Arg	Gly	Val
			85					90					95		
Gln	His	Pro	Leu	Arg	Gly	Leu	Phe	Leu	Arg	Asn	Tyr	Leu	Leu	Gln	Cys
			100					105					110		
Thr	Arg	Asn	Ile	Leu	Pro	Asp	Glu	Gly	Glu	Pro	Thr	Asp	Glu	Glu	Thr
		115				120						125			
Thr	Gly	Asp	Ile	Ser	Asp	Ser	Met	Asp	Phe	Val	Leu	Leu	Asn	Phe	Ala
	130					135					140				
Glu	Met	Asn	Lys	Leu	Trp	Val	Arg	Met	Gln	His	Gln	Gly	His	Ser	Arg
	145			150					155					160	
Asp	Arg	Glu	Lys	Arg	Glu	Arg	Glu	Arg	Gln	Glu	Leu	Arg	Ile	Leu	Val
			165					170					175		
Gly	Thr	Asn	Leu	Val	Arg	Leu	Ser	Xaa	Ser	Trp	Arg	Cys	Lys	Cys	Gly
		180					185					190			
Thr	Leu	Gln	Gln	Ile	Val	Leu	Thr	Gly	Ile	Leu	Glu	Gln	Val	Val	Asn

195	200	205
Cys Arg Asp Ala Leu Ala Gln Glu Tyr Leu Met Glu Cys Ile Ile Gln		
210	215	220
Val Phe Pro Asp Glu Phe His Leu Gln Thr Leu Asn Pro Phe Leu Arg		
225	230	235
Ala Cys Ala Glu Leu His Gln Asn Val Asn Val Lys Asn Ile Ile Ile		240
	245	250
Ala Leu Ile Asp Arg Leu Ala Leu Phe Ala His Arg Glu Asp Gly Pro		255
	260	265
Gly Ile Pro Ala Asp Ile Lys Leu Phe Asp Ile Phe Ser Gln Gln Val		270
	275	280
Ala Thr Val Ile Gln Ser Arg Gln Asp Met Pro Ser Glu Asp Val Val		285
	290	295
Ser Leu Gln Val Ser Leu Ile Asn Leu Ala Met Lys Cys Tyr Pro Asp		300
305	310	315
Arg Val Asp Tyr Val Asp Lys Val Leu Glu Thr Thr Val Glu Ile Phe		320
	325	330
Asn Lys Leu Asn Leu Glu His Ile Ala Thr Ser Ser Ala Val Ser Lys		335
	340	345
Glu Leu Thr Arg Leu Leu Lys Ile Pro Val Asp Thr Tyr Asn Asn Ile		350
	355	360
Leu Thr Val Leu Lys Leu Lys His Phe His Pro Leu Phe Glu Tyr Phe		365
	370	375
Asp Tyr Glu Ser Arg Lys Ser Met Ser Cys Tyr Val Leu Ser Asn Val		380
385	390	395
Leu Asp Tyr Asn Thr Glu Ile Val Ser Gln Asp Gln Val Asp Ser Ile		400
	405	410
Met Asn Leu Val Ser Thr Leu Ile Gln Asp Gln Pro Asp Gln Pro Val		415
	420	425
Glu Asp Pro Asp Pro Glu Asp Phe Ala Asp Glu Gln Ser Leu Val Gly		430
	435	440
Arg Phe Ile His Leu Leu Arg Ser Glu Asp Pro Asp Gln Gln Tyr Leu		445
	450	455
Ile Leu Asn Thr Ala Arg Lys His Phe Gly Ala Gly Gly Asn Gln Arg		460
465	470	475
Ile Arg Phe Thr Leu Pro Pro Leu Val Phe Ala Ala Tyr Gln Leu Ala		480
	485	490
Phe Arg Tyr Lys Glu Asn Ser Lys Trp Met Thr Asn Gly Lys Arg Asn		495
	500	505
Ala Arg Arg Phe Phe His Leu Pro Xaa Gln Thr Ile Ser Ala Leu Ile		510
	515	520
Lys Ala Glu Leu Ala Glu Leu Pro Leu Arg Leu Phe Leu Gln Gly Ala		525
	530	535
Leu Ala Ala Gly Glu Ile Gly Phe Glu Asn His Glu Thr Val Ala Tyr		540
545	550	555
Glu Phe Met Ser Gln Ala Phe Ser Leu Tyr Glu Asp Glu Ile Ser Asp		560
	565	570
Ser Lys Ala Gln Leu Ala Ala Ile Thr Leu Ile Ile Gly Thr Phe Glu		575
	580	585
Arg Met Lys Cys Phe Ser Glu Glu Asn His Glu Pro Leu Arg Thr Gln		590
	595	600
Cys Ala Leu Ala Ala Ser Lys Leu Leu Lys Lys Pro Asp Gln Gly Arg		605
	610	615
Ala Glu His Leu Cys Thr Ser Leu Trp Ser Gly Arg Asn Thr Asp Lys		620

625		630		635		640
Asn Gly Glu Glu Leu His Gly Gly Lys Arg Val Met Glu Cys Leu Lys						
	645		650		655	
Lys Ala Leu Lys Ile Ala Asn Gln Cys Met Asp Pro Ser Leu Gln Val						
	660		665		670	
Gln Leu Phe Ile Glu Ile Leu Asn Arg Tyr Ile Tyr Phe Tyr Glu Lys						
	675		680		685	
Glu Asn Asp Ala Val Thr Ile Gln Val Leu Asn Gln Leu Ile Gln Lys						
	690		695		700	
Ile Arg Glu Asp Leu Pro Asn Leu Glu Ser Ser Glu Glu Thr Glu Gln						
705		710		715		720
Ile Asn Lys His Phe His Asn Thr Leu Glu His Leu Arg Leu Arg Arg						
	725		730		735	
Glu Ser Pro Glu Ser Glu Gly Pro Ile Tyr Glu Gly Leu Ile Leu						
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<210> 6181

<211> 1135

<212> DNA

<213> Homo sapiens

<400> 6181

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480
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 1135

<210> 6182
 <211> 236
 <212> PRT
 <213> Homo sapiens

<400> 6182
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 35 40 45
 Asp Ala Gln Lys His Asp Val Glu Val Leu Glu Arg Asn Phe Gln Thr
 50 55 60
 Ile Leu Cys Glu Phe Glu Thr Leu Tyr Lys Ala Phe Ser Asn Cys Ser
 65 70 75 80
 Leu Pro Gln Gly Trp Lys Met Asn Ser Thr Pro Ser Gly Glu Trp Phe
 85 90 95
 Thr Phe Tyr Leu Val Asn Gln Gly Val Cys Val Pro Arg Asn Cys Arg
 100 105 110
 Lys Cys Pro Arg Thr Tyr Arg Leu Leu Gly Ser Leu Arg Thr Cys Ile
 115 120 125
 Gly Asn Asn Val Phe Gly Asn Ala Cys Ile Ser Val Leu Ser Pro Gly
 130 135 140
 Thr Val Ile Thr Glu His Tyr Gly Pro Thr Asn Ile Arg Ile Arg Cys
 145 150 155 160
 His Leu Gly Leu Lys Thr Pro Asn Gly Cys Glu Leu Val Val Gly Gly
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 Glu Pro Gln Cys Trp Ala Glu Gly Arg Cys Leu Leu Phe Asp Asp Ser
 180 185 190
 Phe Leu His Ala Ala Phe His Glu Gly Ser Ala Glu Asp Gly Pro Arg
 195 200 205
 Val Val Phe Met Val Asp Leu Trp His Pro Asn Val Ala Ala Ala Glu
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 Arg Gln Ala Leu Asp Phe Ile Phe Ala Pro Gly Arg
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<210> 6183
 <211> 2530
 <212> DNA
 <213> Homo sapiens

<400> 6183
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<210> 6184

<211> 308

<212> PRT

<213> Homo sapiens

<400> 6184

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			20					25					30		
Gly	Met	Gly	Asn	Arg	Gly	Gly	Phe	Arg	Gly	Gly	Phe	Gly	Ser	Gly	Ile
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Arg	Gly	Arg	Gly	Arg	Gly	Arg	Gly	Arg	Gly	Arg	Gly	Arg	Gly	Arg	Gly
	50				55					60					
Ala	Arg	Gly	Gly	Lys	Ala	Glu	Asp	Lys	Glu	Trp	Met	Pro	Val	Thr	Lys
65				70					75					80	
Leu	Gly	Arg	Leu	Val	Lys	Asp	Met	Lys	Ile	Lys	Ser	Leu	Glu	Glu	Ile
			85					90					95		
Tyr	Leu	Phe	Ser	Leu	Pro	Ile	Lys	Glu	Ser	Glu	Ile	Ile	Asp	Phe	Phe
			100				105						110		
Leu	Gly	Ala	Ser	Leu	Lys	Asp	Glu	Val	Leu	Lys	Ile	Met	Pro	Val	Gln
		115				120						125			
Lys	Gln	Thr	Arg	Ala	Gly	Gln	Arg	Thr	Arg	Phe	Lys	Ala	Phe	Val	Ala
	130					135					140				
Ile	Gly	Asp	Tyr	Asn	Gly	His	Val	Gly	Leu	Gly	Val	Lys	Cys	Ser	Lys

145 150 155 160
 Glu Val Ala Thr Ala Ile Arg Gly Ala Ile Ile Leu Ala Lys Leu Ser
 165 170 175
 Ile Val Pro Val Arg Arg Gly Tyr Trp Gly Asn Lys Ile Gly Lys Pro
 180 185 190
 His Thr Val Pro Cys Lys Val Thr Gly Arg Cys Gly Ser Val Leu Val
 195 200 205
 Arg Leu Ile Pro Ala Pro Arg Gly Thr Gly Ile Val Ser Ala Pro Val
 210 215 220
 Pro Lys Lys Leu Leu Met Met Ala Gly Ile Asp Asp Cys Tyr Thr Ser
 225 230 235 240
 Ala Arg Gly Cys Thr Ala Thr Leu Gly Asn Phe Ala Lys Ala Thr Phe
 245 250 255
 Asp Ala Ile Ser Lys Thr Tyr Ser Tyr Leu Thr Pro Asp Leu Trp Lys
 260 265 270
 Glu Thr Val Phe Thr Lys Ser Pro Tyr Gln Glu Phe Thr Asp His Leu
 275 280 285
 Val Lys Thr His Thr Arg Val Ser Val Gln Arg Thr Gln Ala Pro Ala
 290 295 300
 Val Ala Thr Thr
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<210> 6185
 <211> 1231
 <212> DNA
 <213> Homo sapiens

<400> 6185
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 720
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<210> 6186
 <211> 133
 <212> PRT
 <213> Homo sapiens

<400> 6186
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 Gly Tyr Ile Cys Arg Ile Cys His Lys Phe Tyr His Ser Asn Ser Gly
 35 40 45
 Ala Gln Leu Ser His Cys Lys Ser Leu Gly His Phe Glu Asn Leu Gln
 50 55 60
 Lys Tyr Lys Ala Ala Lys Asn Pro Ser Pro Thr Thr Arg Pro Val Ser
 65 70 75 80
 Arg Arg Cys Ala Ile Asn Ala Arg Asn Ala Leu Thr Ala Leu Phe Thr
 85 90 95
 Ser Ser Gly Arg Pro Pro Ser Gln Pro Asn Thr Gln Asp Lys Thr Pro
 100 105 110
 Ser Lys Val Thr Ala Arg Pro Ser Gln Pro Pro Leu Pro Arg Arg Ser
 115 120 125
 Thr Arg Leu Lys Thr
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<210> 6187
 <211> 909
 <212> DNA
 <213> Homo sapiens

<400> 6187
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 180

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<210> 6188
 <211> 227
 <212> PRT
 <213> Homo sapiens

<400> 6188
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 35 40 45
 Phe Tyr Pro Glu Leu Gly Asn Ile Gly Cys Lys Val Val Pro Asp Cys
 50 55 60
 Asn Asn Tyr Arg Gln Lys Ile Thr Ser Trp Met Glu Pro Ile Val Lys
 65 70 75 80
 Phe Pro Gly Ala Val Tyr Gly Ala Thr Tyr Ile Leu Val Met Val Asp
 85 90 95
 Pro Asp Ala Pro Ser Arg Ala Glu Pro Arg Gln Arg Phe Trp Arg His
 100 105 110
 Trp Leu Val Thr Asp Ile Lys Gly Ala Asp Leu Lys Lys Gly Lys Ile
 115 120 125
 Gln Gly Gln Glu Leu Ser Ala Tyr Gln Ala Pro Ser Pro Pro Ala His
 130 135 140
 Ser Gly Phe His Arg Tyr Gln Phe Phe Val Tyr Leu Gln Glu Gly Lys
 145 150 155 160
 Val Ile Ser Leu Leu Pro Lys Glu Asn Lys Thr Arg Gly Ser Trp Lys

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Met Asp Arg Phe Leu Asn Arg Phe His Leu Gly Glu Pro Glu Ala Ser
                180                185                190
Thr Gln Phe Met Thr Gln Asn Tyr Gln Asp Ser Pro Thr Leu Gln Ala
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Pro Arg Glu Arg Ala Ser Glu Pro Lys His Lys Asn Gln Ala Glu Ile
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Ala Ala Cys
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<210> 6189
<211> 2761
<212> DNA
<213> Homo sapiens

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1140

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2761

<210> 6190

<211> 576

<212> PRT

<213> Homo sapiens

<400> 6190

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      35           40           45
Asn Asn Leu Asn Val Glu Glu Asn Ser Ser Gly Asp Gln Arg Arg Ala
      50           55           60
Pro Leu Ala Ala Gly Thr Trp Arg Ser Ala Pro Val Pro Val Thr Thr
      65           70           75           80
Gln Asn Pro Pro Gly Ala Pro Pro Asn Val Leu Trp Gln Thr Pro Leu
      85           90           95
Ala Trp Gln Asn Pro Ser Gly Trp Gln Asn Gln Thr Ala Arg Gln Thr
      100          105          110
Pro Pro Ala Arg Gln Ser Pro Pro Ala Arg Gln Thr Pro Pro Ala Trp
      115          120          125
Gln Thr Gln Asn Pro Val Ala Trp Gln Asn Pro Val Ile Trp Pro Asn
      130          135          140
Pro Val Ile Trp Gln Asn Pro Val Ile Trp Pro Asn Pro Ile Val Trp
      145          150          155          160
Pro Gly Pro Val Val Trp Pro Asn Pro Leu Ala Trp Gln Asn Pro Pro
      165          170          175
Gly Trp Gln Thr Pro Pro Gly Trp Gln Thr Pro Pro Gly Trp Gln Gly
      180          185          190
Pro Pro Asp Trp Gln Gly Pro Pro Asp Trp Pro Leu Pro Pro Asp Trp
      195          200          205
Pro Leu Pro Pro Asp Trp Pro Leu Pro Thr Asp Trp Pro Leu Pro Pro
      210          215          220
Asp Trp Ile Pro Ala Asp Trp Pro Ile Pro Pro Asp Trp Gln Asn Leu
      225          230          235          240
Arg Pro Ser Pro Asn Leu Arg Pro Ser Pro Asn Ser Arg Ala Ser Gln
      245          250          255
Asn Pro Gly Ala Ala Gln Pro Arg Asp Val Ala Leu Leu Gln Glu Arg
      260          265          270
Ala Asn Lys Leu Val Lys Tyr Leu Met Leu Lys Asp Tyr Thr Lys Val
      275          280          285
Pro Ile Lys Arg Ser Glu Met Leu Arg Asp Ile Ile Arg Glu Tyr Thr
      290          295          300
Asp Val Tyr Pro Glu Ile Ile Glu Arg Ala Cys Phe Val Leu Glu Lys
      305          310          315          320
Lys Phe Gly Ile Gln Leu Lys Glu Ile Asp Lys Glu Glu His Leu Tyr
      325          330          335
Ile Leu Ile Ser Thr Pro Glu Ser Leu Ala Gly Ile Leu Gly Thr Thr
      340          345          350
Lys Asp Thr Pro Lys Leu Gly Leu Leu Leu Val Ile Leu Gly Val Ile

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385	390	395
Leu Arg Lys Leu Leu Thr Tyr Glu Phe Val Lys Gln Lys Tyr Leu Asp		
405	410	415
Tyr Arg Arg Val Pro Asn Ser Asn Pro Glu Tyr Glu Phe Leu Trp		
420	425	430
Gly Leu Arg Ser Tyr His Glu Thr Ser Lys Met Lys Val Leu Arg Phe		
435	440	445
Ile Ala Glu Val Gln Lys Arg Asp Pro Arg Asp Trp Thr Ala Gln Phe		
450	455	460
Met Glu Ala Ala Asp Glu Ala Leu Asp Ala Leu Asp Ala Ala Ala Ala		
465	470	475
Glu Ala Glu Ala Arg Ala Glu Ala Arg Thr Arg Met Gly Ile Gly Asp		
485	490	495
Glu Ala Val Ser Gly Pro Trp Ser Trp Asp Asp Ile Glu Phe Glu Leu		
500	505	510
Leu Thr Trp Asp Glu Glu Gly Asp Phe Gly Asp Pro Trp Ser Arg Ile		
515	520	525
Pro Phe Thr Phe Trp Ala Arg Tyr His Gln Asn Ala Arg Ser Arg Phe		
530	535	540
Pro Gln Thr Phe Ala Gly Pro Ile Ile Gly Pro Gly Gly Thr Ala Ser		
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Ala Asn Phe Ala Ala Asn Phe Gly Ala Ile Gly Phe Phe Trp Val Glu		
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<210> 6191

<211> 3021

<212> DNA

<213> Homo sapiens

<400> 6191

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 <212> PRT
 <213> Homo sapiens

<400> 6192
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 Gly Ser Ala Asn Val Val Thr Glu Ala Leu Gln Arg Phe Thr Arg Ala
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 Ala Ala Asp Phe Ala Thr His Gly Lys Leu Gly Lys Leu Glu Phe Ala
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 Gln Asp Ala His Gly Gln Pro Asp Val Ser Ala Phe Asp Phe Thr Ser
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Asp Leu Tyr Asp Val Leu Ala Lys Glu Pro Val Gln Arg Asn Asn Asp
225          230          235          240
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<212> DNA
<213> Homo sapiens
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<211> 621

<212> PRT

<213> Homo sapiens

<400> 6194

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Val	Pro	Asn	Val	Phe	Pro	Ser	Ser	Gly	Asp	Phe	Thr	Gln	Thr	Ala	Val
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Phe	Arg	Thr	Tyr	Gly	Thr	Trp	Trp	Asp	Gln	Cys	Pro	Ser	Ala	Ser	Leu
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<212> DNA

<213> Homo sapiens

<400> 6197

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<212> PRT

<213> Homo sapiens

<400> 6198

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Ser	Ser	Gln	His	His	Gly	Leu	Asn	Thr	His	Trp	Ala	Pro	Thr	Leu	Gly
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Pro	Gly	Trp	Gly	Met	Trp	Gly	Gln	Glu	Ala	Ala	Gln	Ser	Gly	Arg	Gln
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Arg	Glu	Lys	Cys	Val	Gln	Arg	Ala	Pro	Ile	Ser	Gly	Cys	Asn	Val	Val
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Leu	Arg	Leu	Trp	Leu	Gly	Ser	Ala	Ser	Arg	Val	Ser	Tyr	Val	Leu	Cys
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<210> 6199

<211> 1777

<212> DNA

<213> Homo sapiens

<400> 6199

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<210> 6200

<211> 164

<212> PRT

<213> Homo sapiens

<400> 6200

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		20						25					30		
Pro	Pro	Lys	Pro	Asp	Cys	Gln	Gln	Lys	Pro	Ser	Pro	Ser	Glu	Gly	Gln
		35					40					45			
Val	Gly	Val	Pro	Xaa	Arg	Ser	Pro	His	Pro	Gln	Gly	Gly	Phe	Thr	His
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Cys	Pro	Val	Pro	Gly	Met	Pro	Gly	Gly	Arg	Pro	Leu	Cys	Cys	Cys	His
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Cys	Cys	Gln	His	Cys	Pro	Ala	Cys	Glu	Ala	Arg	Arg	Ser	Pro	Cys	Pro
			85					90					95		
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		100						105					110		
Trp	Ser	Lys	Lys	Leu	Val	Phe	Leu	Phe	Cys	Ile	Asn	Glu	Lys	Asn	Pro
		115					120					125			
Gly	Glu	Ala	Ala	Thr	Leu	Pro	Ser	Gln	Arg	Asp	Ala	Leu	Pro	Cys	Phe
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<210> 6202
<211> 124
<212> PRT
<213> Homo sapiens

<400> 6202
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35 40 45
Ala Gly Leu Arg Gly Cys Arg Glu Glu Phe Gly Gly Lys Gly Gln Pro
50 55 60
Gln Ser Leu Ser Cys Ala Ser Trp Glu Arg Gly Met Thr Gly Arg His
65 70 75 80
Thr Asn Val Ser Gln Gly Arg Trp Ala Trp Gly His Arg Ala Pro Arg
85 90 95
Gly Gly Ser Gly Glu Gly Glu Pro Ala Glu Glu Arg Pro Gly Arg Ala
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115

120

<210> 6203

<211> 3462

<212> DNA

<213> Homo sapiens

<400> 6203

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120

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420

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<211> 486

<212> PRT

<213> Homo sapiens

<400> 6204

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			20					25					30		
Asp	Gly	His	Arg	Leu	Cys	Ser	Asp	Leu	Met	Asn	Cys	Leu	His	Glu	Arg
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Ala	Arg	Ile	Glu	Lys	Ala	Tyr	Ala	Gln	Gln	Leu	Thr	Glu	Trp	Ala	Arg
	50					55				60					
Arg	Trp	Arg	Gln	Leu	Val	Glu	Lys	Gly	Pro	Gln	Tyr	Gly	Thr	Val	Glu
65				70					75					80	
Lys	Ala	Trp	Met	Ala	Phe	Met	Ser	Glu	Ala	Glu	Arg	Val	Ser	Glu	Leu
			85					90					95		
His	Leu	Glu	Val	Lys	Ala	Ser	Leu	Met	Asn	Asp	Asp	Phe	Glu	Lys	Ile
		100						105					110		
Lys	Asn	Trp	Gln	Lys	Glu	Ala	Phe	His	Lys	Gln	Met	Met	Gly	Gly	Phe
		115					120					125			
Lys	Glu	Thr	Lys	Glu	Ala	Glu	Asp	Gly	Phe	Arg	Lys	Ala	Gln	Lys	Pro
	130					135				140					
Trp	Ala	Lys	Lys	Leu	Lys	Glu	Val	Glu	Ala	Ala	Lys	Lys	Ala	His	His
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Ala	Ala	Cys	Lys	Glu	Glu	Lys	Leu	Ala	Ile	Ser	Arg	Glu	Ala	Asn	Ser
			165					170					175		
Lys	Ala	Asp	Pro	Ser	Leu	Asn	Pro	Glu	Gln	Leu	Lys	Lys	Leu	Gln	Asp
		180						185					190		
Lys	Ile	Glu	Lys	Cys	Lys	Gln	Asp	Val	Leu	Lys	Thr	Lys	Glu	Lys	Tyr
	195					200						205			
Glu	Lys	Ser	Leu	Lys	Glu	Leu	Asp	Gln	Gly	Thr	Pro	Gln	Tyr	Met	Glu
	210					215					220				
Asn	Met	Glu	Gln	Val	Phe	Glu	Gln	Cys	Gln	Gln	Phe	Glu	Glu	Lys	Arg
225				230					235					240	
Leu	Arg	Phe	Phe	Arg	Glu	Val	Leu	Leu	Glu	Val	Gln	Lys	His	Leu	Asp

245 250 255
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 260 265 270
 Ser Ile Arg Ala Ala Asp Ala Val Glu Asp Leu Arg Trp Phe Arg Ala
 275 280 285
 Asn His Gly Pro Gly Met Ala Met Asn Trp Pro Gln Phe Glu Glu Trp
 290 295 300
 Ser Ala Asp Leu Asn Arg Thr Leu Ser Arg Arg Glu Lys Lys Lys Ala
 305 310 315 320
 Thr Asp Gly Val Thr Leu Thr Gly Ile Asn Gln Thr Gly Asp Gln Ser
 325 330 335
 Leu Pro Ser Lys Pro Ser Ser Thr Leu Asn Val Pro Ser Asn Pro Ala
 340 345 350
 Gln Ser Ala Gln Ser Gln Ser Ser Tyr Asn Pro Phe Glu Asp Glu Asp
 355 360 365
 Asp Thr Gly Ser Thr Val Ser Glu Lys Asp Asp Thr Lys Ala Lys Asn
 370 375 380
 Val Ser Ser Tyr Glu Lys Thr Gln Ser Tyr Pro Thr Asp Trp Ser Asp
 385 390 395 400
 Asp Glu Ser Asn Asn Pro Phe Ser Ser Thr Asp Ala Asn Gly Asp Ser
 405 410 415
 Asn Pro Phe Asp Asp Asp Ala Thr Ser Gly Thr Glu Val Arg Val Arg
 420 425 430
 Ala Leu Tyr Asp Tyr Glu Gly Gln Glu His Asp Glu Leu Ser Phe Lys
 435 440 445
 Ala Gly Asp Glu Leu Thr Lys Met Glu Asp Glu Asp Glu Gln Gly Trp
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 Cys Lys Gly Arg Leu Asp Asn Gly Gln Val Gly Leu Tyr Pro Ala Asn
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<211> 926

<212> DNA

<213> Homo sapiens

<400> 6205

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 35 40 45
 Thr Ser Ala Lys Leu Asn His Gln Val Ser Glu Val Phe Asn Thr Val
 50 55 60
 Ala Gln Glu Leu Leu Gln Arg Ser Asp Glu Glu Gly Gln Ala Leu Xaa
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<210> 6207
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<211> 290

<212> PRT

<213> Homo sapiens

<400> 6208

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			20					25					30		
Ser	Ala	Gly	Leu	Ser	Leu	Val	Gly	Leu	Leu	Thr	Leu	Gly	Ala	Val	Leu
		35					40					45			
Ser	Ala	Ala	Ala	Thr	Val	Arg	Glu	Ala	Gln	Gly	Leu	Met	Ala	Gly	Gly
		50				55				60					
Phe	Leu	Cys	Phe	Ser	Leu	Ala	Phe	Xaa	Ala	Gln	Val	Gln	Val	Val	Phe
65					70					75				80	
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<211> 165

<212> PRT

<213> Homo sapiens

<400> 6210

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Cys	Trp	Val	Leu	Gln	Ala	Arg	Lys	Pro	Gly	Ser	Gly	Gly	Thr	Arg	Glu
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<211> 2163

<212> DNA

<213> Homo sapiens

<400> 6211

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 2163

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 <213> Homo sapiens

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 35 40 45
 Ala Phe Glu Gly Ser Tyr Leu Glu Asp Thr Gln Met Tyr Gly Asn Ile
 50 55 60
 Ile Arg Gly Trp Xaa Ser Val Ser Asp Gln Pro Xaa Lys Asn Ser Asn
 65 70 75 80
 Ser Lys Asn Asp Arg Arg Asn Arg Lys Phe Lys Glu Ala Glu Arg Leu
 85 90 95
 Phe Ser Lys Ser Ser Val Thr Ser Ala Ala Ala Val Ser Ala Leu Ala
 100 105 110
 Gly Val Gln Asp Gln Leu Ile Glu Lys Arg Glu Pro Gly Ser Gly Thr
 115 120 125
 Glu Ser Asp Thr Ser Pro Asp Phe His Asn Gln Glu Asn Glu Pro Ser
 130 135 140
 Gln Glu Asp Pro Glu Asp Leu Asp Gly Ser Val Gln Gly Val Lys Pro
 145 150 155 160
 Gln Lys Ala Ala Ser Ser Thr Ser Ser Gly Ser His His Ser Ser His
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 Tyr Asp Phe Glu Ile Asp Leu Lys Leu Asn Lys Lys Pro Arg Ala Asp
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 <213> Homo sapiens

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 35 40 45
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 Val Met Met Glu Gln Ile Arg Pro Trp His Ser Arg Met Lys Arg Arg
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<210> 6216
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 <213> Homo sapiens

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 Leu Gln Glu Ser Asp Ala Ala Pro Leu Pro Leu Ser Cys His Leu Ala
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<400> 6217

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<210> 6218

<211> 133

<212> PRT

<213> Homo sapiens

<400> 6218

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Lys Tyr Lys Ala Ala Lys Asn Pro Ser Pro Thr Thr Arg Pro Val Ser
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Arg Arg Cys Ala Ile Asn Ala Arg Asn Ala Leu Thr Ala Leu Phe Thr
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Ser Ser Gly Arg Pro Pro Ser Gln Pro Asn Thr Gln Asp Lys Thr Pro
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<212> DNA

<213> Homo sapiens

<400> 6219

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 <212> PRT
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 Gly Gly Pro Ala Pro Ser Pro Gln Xaa Tyr Ile His Asp Ser Pro Ser
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 Cys Trp Pro Trp Thr Lys Ala Gly Ser Ser Xaa Cys Pro Val Arg Ser
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 Pro Tyr Ser Pro Pro Ala Ala Arg Pro Gly Pro Gly Xaa Pro Leu Trp
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 Cys Gln Arg Val Ser Gln Asn Pro Gly Pro Ser Pro Ser Xaa Gly Pro
 100 105 110
 Leu Pro Ser Pro Arg Pro Val Cys Trp Asp Gly Ala Ser Thr Leu Arg
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<210> 6222

<211> 330

<212> PRT

<213> Homo sapiens

<400> 6222

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Gln Arg Ser Ala Leu Thr Val His Lys Gln Cys His Leu Gln Asn Lys					
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Pro Tyr Arg Cys His Asp Cys Gly Lys Cys Phe Arg Gln Leu Ala Tyr					
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Leu Val Glu His Lys Arg Ile His Thr Lys Glu Lys Pro Tyr Lys Cys					
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Ser Lys Cys Glu Lys Thr Phe Ser Gln Asn Ser Thr Leu Ile Arg His					
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Gln Val Ile His Ser Gly Glu Lys Arg His Lys Cys Leu Glu Cys Gly					
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Lys Ala Phe Gly Arg His Ser Thr Leu Leu Cys His Gln Gln Ile His					
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Arg Asn Val Asp Leu Ile Gln His Gln Arg Ile His Thr Lys Glu Glu					
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Phe Phe Gln Cys Gly Glu Cys Gly Lys Thr Phe Ser Phe Lys Arg Asn					
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Leu Phe Arg His Gln Val Ile His Thr Gly Ser Gln Leu Tyr Gln Cys					
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<212> DNA

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<400> 6223

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 Gln Pro Glu Asn Met Gln Pro Arg Thr Arg Arg Thr Lys Phe Thr Leu
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 Leu Gln Val Glu Glu Leu Glu Ser Val Phe Arg His Thr Gln Tyr Pro
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<212> PRT

<213> Homo sapiens

<400> 6226

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<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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<210> 6230

<211> 944

<212> PRT

<213> Homo sapiens

<400> 6230

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			20					25				30			
Ser	Leu	Val	Ser	Ala	Leu	Asp	Ser	Met	Cys	Ser	Ala	Leu	Ser	Lys	Leu
		35				40					45				
Asn	Ala	Glu	Val	Ala	Cys	Val	Ala	Val	His	Asp	Glu	Ser	Ala	Phe	Val
	50				55					60					
Val	Gly	Thr	Glu	Lys	Gly	Arg	Met	Phe	Leu	Asn	Ala	Arg	Lys	Glu	Leu
65				70					75					80	
Gln	Ser	Asp	Phe	Leu	Arg	Phe	Cys	Arg	Gly	Pro	Pro	Trp	Lys	Asp	Pro
			85					90					95		
Glu	Ala	Glu	His	Pro	Lys	Lys	Val	Gln	Arg	Gly	Glu	Gly	Gly	Gly	Arg
			100					105					110		
Ser	Leu	Pro	Arg	Ser	Ser	Leu	Glu	His	Gly	Ser	Asp	Val	Tyr	Leu	Leu
		115				120					125				
Arg	Lys	Met	Val	Glu	Glu	Val	Phe	Asp	Val	Leu	Tyr	Ser	Glu	Ala	Leu
	130					135				140					
Gly	Arg	Ala	Ser	Val	Val	Pro	Leu	Pro	Tyr	Glu	Arg	Leu	Leu	Arg	Glu
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Pro	Gly	Leu	Leu	Ala	Val	Gln	Gly	Leu	Pro	Glu	Gly	Leu	Ala	Phe	Arg

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165      170      175
Arg Pro Ala Glu Tyr Asp Pro Lys Ala Leu Met Ala Ile Leu Glu His
180      185      190
Ser His Arg Ile Arg Phe Lys Leu Lys Arg Pro Leu Glu Asp Gly Gly
195      200      205
Arg Asp Ser Lys Ala Leu Val Glu Leu Asn Gly Val Ser Leu Ile Pro
210      215      220
Lys Gly Ser Arg Asp Cys Gly Leu His Gly Gln Ala Pro Lys Val Pro
225      230      235      240
Pro Gln Asp Leu Pro Pro Thr Ala Thr Ser Ser Ser Met Ala Ser Phe
245      250      255
Leu Tyr Ser Thr Ala Leu Pro Asn His Ala Ile Arg Glu Leu Lys Gln
260      265      270
Glu Ala Pro Ser Cys Pro Leu Ala Pro Ser Asp Leu Gly Leu Ser Arg
275      280      285
Pro Met Pro Glu Pro Lys Ala Thr Gly Ala Gln Asp Phe Ser Asp Cys
290      295      300
Cys Gly Gln Lys Pro Thr Gly Pro Gly Gly Pro Leu Ile Gln Asn Val
305      310      315      320
His Ala Ser Lys Arg Ile Leu Phe Ser Ile Val His Asp Lys Ser Glu
325      330      335
Lys Trp Asp Ala Phe Ile Lys Glu Thr Glu Asp Ile Asn Thr Leu Arg
340      345      350
Glu Cys Val Gln Ile Leu Phe Asn Ser Arg Tyr Ala Glu Ala Leu Gly
355      360      365
Leu Gly Asn Met Val Pro Val Pro Tyr Arg Lys Ile Ala Cys Asp Pro
370      375      380
Glu Ala Val Glu Ile Val Gly Ile Pro Asp Lys Ile Pro Phe Lys Arg
385      390      395      400
Pro Cys Thr Tyr Gly Val Pro Lys Leu Lys Arg Ile Leu Glu Glu Arg
405      410      415
His Ser Ile His Phe Ile Ile Lys Arg Met Phe Asp Glu Arg Ile Phe
420      425      430
Thr Gly Asn Lys Phe Thr Lys Asp Thr Thr Lys Leu Glu Pro Ala Ser
435      440      445
Pro Pro Glu Asp Thr Ser Ala Glu Val Ser Arg Ala Thr Val Leu Asp
450      455      460
Leu Ala Gly Asn Ala Arg Ser Asp Lys Gly Ser Met Ser Glu Asp Cys
465      470      475      480
Gly Pro Gly Thr Ser Gly Glu Leu Gly Gly Leu Arg Pro Ile Lys Ile
485      490      495
Glu Pro Glu Asp Leu Asp Ile Ile Gln Val Thr Val Pro Asp Pro Ser
500      505      510
Pro Thr Ser Glu Glu Met Thr Asp Ser Met Pro Gly His Leu Pro Ser
515      520      525
Glu Asp Ser Gly Tyr Gly Met Glu Met Leu Thr Asp Lys Gly Leu Ser
530      535      540
Glu Asp Ala Arg Pro Glu Glu Arg Pro Val Glu Asp Ser His Gly Asp
545      550      555      560
Val Ile Arg Pro Leu Arg Lys Gln Val Glu Leu Leu Phe Asn Thr Arg
565      570      575
Tyr Ala Lys Ala Ile Gly Ile Ser Glu Pro Val Lys Val Pro Tyr Ser
580      585      590
Lys Phe Leu Met His Pro Glu Glu Phe Val Val Gly Leu Pro Glu

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595	600	605
Gly Ile Ser Leu Arg Arg	Pro Asn Cys Phe Gly	Ile Ala Lys Leu Arg
610	615	620
Lys Ile Leu Glu Ala Ser	Asn Ser Ile Gln Phe	Val Ile Lys Arg Pro
625	630	635
Glu Leu Leu Thr Glu Gly	Val Lys Glu Pro Ile	Val Asp Ser Gln Glu
645	650	655
Arg Asp Ser Gly Asp Pro	Leu Val Asp Glu Ser	Leu Lys Arg Gln Gly
660	665	670
Phe Gln Glu Asn Tyr Asp	Ala Arg Leu Ser Arg	Ile Asp Ile Ala Asn
675	680	685
Thr Leu Arg Glu Gln Val	Gln Asp Leu Phe Asn	Lys Lys Tyr Gly Glu
690	695	700
Ala Leu Gly Ile Lys Tyr	Pro Val Gln Val Pro	Tyr Lys Arg Ile Lys
705	710	715
Ser Asn Pro Gly Ser Val	Ile Ile Glu Gly Leu	Pro Pro Gly Ile Pro
725	730	735
Phe Arg Lys Pro Cys Thr	Phe Gly Ser Gln Asn	Leu Glu Arg Ile Leu
740	745	750
Ala Val Ala Asp Lys Ile	Lys Phe Thr Val Thr	Arg Pro Phe Gln Gly
755	760	765
Leu Ile Pro Lys Pro Asp	Glu Asp Asp Ala Asn	Arg Leu Gly Glu Lys
770	775	780
Val Ile Leu Arg Glu Gln	Val Lys Glu Leu Phe	Asn Glu Lys Tyr Gly
785	790	795
Glu Ala Leu Gly Leu Asn	Arg Pro Val Leu Val	Pro Tyr Lys Leu Ile
805	810	815
Arg Asp Ser Pro Asp Ala	Val Glu Val Thr Gly	Leu Pro Asp Asp Ile
820	825	830
Pro Phe Arg Asn Pro Asn	Thr Tyr Asp Ile His	Arg Leu Glu Lys Ile
835	840	845
Leu Lys Ala Arg Glu His	Val Arg Met Val Ile	Ile Asn Gln Leu Gln
850	855	860
Pro Phe Ala Glu Ile Cys	Asn Asp Ala Lys Val	Pro Ala Lys Asp Ser
865	870	875
Ser Ile Pro Lys Arg Lys	Arg Lys Arg Val Ser	Glu Gly Asn Ser Val
885	890	895
Ser Ser Ser Ser Ser Ser	Ser Ser Ser Ser Ser	Asn Pro Asp Ser
900	905	910
Val Ala Ser Ala Asn Gln	Ile Ser Leu Val Gln	Trp Pro Met Tyr Met
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<210> 6231

<211> 471

<212> DNA

<213> Homo sapiens

<400> 6231

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120

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<210> 6232
 <211> 138
 <212> PRT
 <213> Homo sapiens

<400> 6232
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 35 40 45
 Trp Arg Arg Lys Arg Gly Pro Lys Pro Pro Val Ala Pro Ile Ser Ile
 50 55 60
 Trp Asn Gly Thr Thr Pro Arg Gly Glu Pro Pro Asn His Ser Ser
 65 70 75 80
 Lys Lys Gly Thr Lys Lys Trp Ala Leu Asp Phe Ser Thr Pro Glu Thr
 85 90 95
 Gln Phe Pro Pro Pro Gly Arg Pro Phe Leu Gly Ile Pro Thr Trp Asp
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 Pro Thr Trp Ala Tyr Ser Gly Pro Tyr Leu Phe Leu Val Gly Ile Gly
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 Ile Pro Phe Pro Phe Pro Pro Pro Ser Asn
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<210> 6233
 <211> 894
 <212> DNA
 <213> Homo sapiens

<400> 6233
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<210> 6234

<211> 230

<212> PRT

<213> Homo sapiens

<400> 6234

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			20					25					30		
Glu	Ala	Leu	Met	Leu	Arg	Asp	Gly	Arg	Phe	Ala	Cys	Ala	Ile	Cys	Pro
			35				40					45			
His	Arg	Pro	Val	Leu	Asp	Thr	Leu	Ala	Met	Leu	Thr	Ala	His	Arg	Ala
	50					55					60				
Gly	Lys	Lys	His	Leu	Ser	Ser	Leu	Gln	Leu	Phe	Tyr	Gly	Lys	Lys	Gln
65				70					75					80	
Pro	Gly	Lys	Glu	Arg	Lys	Gln	Asn	Pro	Lys	His	Gln	Asn	Glu	Leu	Arg
				85					90					95	
Arg	Glu	Glu	Thr	Lys	Ala	Glu	Ala	Pro	Leu	Leu	Thr	Gln	Thr	Arg	Leu
			100					105					110		
Ile	Thr	Gln	Ser	Ala	Leu	His	Arg	Ala	Pro	His	Tyr	Asn	Ser	Cys	Cys
			115				120					125			
Arg	Arg	Lys	Tyr	Arg	Pro	Glu	Ala	Pro	Gly	Pro	Ser	Val	Ser	Leu	Ser
	130					135					140				
Pro	Met	Pro	Pro	Ser	Glu	Val	Lys	Leu	Gln	Ser	Gly	Lys	Ile	Ser	Arg
145				150					155					160	
Glu	Pro	Glu	Pro	Ala	Gly	Pro	Gln	Ala	Glu	Glu	Ser	Ala	Thr	Val	
			165					170					175		
Ser	Ala	Pro	Ala	Pro	Met	Ser	Pro	Thr	Arg	Arg	Arg	Ala	Leu	Asp	His
			180					185				190			
Tyr	Leu	Thr	Leu	Arg	Ser	Ser	Gly	Trp	Ile	Pro	Asp	Gly	Arg	Gly	Arg
		195					200				205				
Trp	Val	Lys	Asp	Glu	Asn	Val	Glu	Phe	Asp	Ser	Asp	Glu	Glu	Glu	Pro

5418

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<210> 6236

<211> 820

<212> PRT

<213> Homo sapiens

<400> 6236

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Ala	Arg	Asp	Pro	Val	Arg	Asp	Phe	Pro	Phe	Glu	Leu	Ile	Pro	Glu	Pro
			20					25					30		
Pro	Glu	Gly	Gly	Leu	Pro	Gly	Pro	Trp	Ala	Leu	His	Arg	Gly	Arg	Lys
		35				40					45				
Lys	Ala	Thr	Gly	Ser	Pro	Val	Ser	Ile	Phe	Val	Tyr	Asp	Val	Lys	Pro
	50					55				60					
Gly	Ala	Glu	Glu	Gln	Thr	Gln	Val	Ala	Lys	Ala	Ala	Phe	Lys	Arg	Phe
65				70					75					80	
Lys	Thr	Leu	Arg	His	Pro	Asn	Ile	Leu	Ala	Tyr	Ile	Asp	Gly	Leu	Glu
			85					90					95		
Thr	Glu	Lys	Cys	Leu	His	Val	Val	Thr	Glu	Ala	Val	Thr	Pro	Leu	Gly
			100					105					110		
Ile	Tyr	Leu	Lys	Ala	Arg	Val	Glu	Ala	Gly	Gly	Leu	Lys	Glu	Leu	Glu
		115				120					125				
Ile	Ser	Trp	Gly	Leu	His	Gln	Ile	Val	Lys	Ala	Leu	Ser	Phe	Leu	Val
	130				135					140					
Asn	Asp	Cys	Ser	Leu	Ile	His	Asn	Asn	Val	Cys	Met	Ala	Ala	Val	Phe
145				150					155					160	
Val	Asp	Arg	Ala	Gly	Glu	Trp	Lys	Leu	Gly	Gly	Leu	Asp	Tyr	Met	Tyr
			165					170					175		
Ser	Ala	Gln	Gly	Asn	Gly	Gly	Gly	Pro	Pro	Arg	Lys	Gly	Ile	Pro	Glu
			180					185					190		
Leu	Glu	Gln	Tyr	Asp	Pro	Pro	Glu	Leu	Ala	Asp	Ser	Ser	Gly	Arg	Val
		195					200					205			
Val	Arg	Glu	Lys	Trp	Ser	Ala	Asp	Met	Trp	Arg	Leu	Gly	Cys	Leu	Ile
	210					215					220				
Trp	Glu	Val	Phe	Asn	Gly	Pro	Leu	Pro	Arg	Ala	Ala	Ala	Leu	Arg	Asn

225					230					235				240	
Pro	Gly	Lys	Ile	Pro	Lys	Thr	Leu	Val	Pro	His	Tyr	Cys	Glu	Leu	Val
				245					250					255	
Gly	Ala	Asn	Pro	Lys	Val	Arg	Pro	Asn	Pro	Ala	Arg	Phe	Leu	Gln	Asn
			260					265					270		
Cys	Arg	Ala	Pro	Gly	Gly	Phe	Met	Ser	Asn	Arg	Phe	Val	Glu	Thr	Asn
		275					280					285			
Leu	Phe	Leu	Glu	Glu	Ile	Gln	Ile	Lys	Glu	Pro	Ala	Glu	Lys	Gln	Lys
	290					295				300					
Phe	Phe	Gln	Glu	Leu	Ser	Lys	Ser	Leu	Asp	Ala	Phe	Pro	Glu	Asp	Phe
305					310					315				320	
Cys	Arg	His	Lys	Val	Leu	Pro	Gln	Leu	Leu	Thr	Ala	Phe	Glu	Phe	Gly
			325					330						335	
Asn	Ala	Gly	Ala	Val	Val	Leu	Thr	Pro	Leu	Phe	Lys	Val	Gly	Lys	Phe
		340						345					350		
Leu	Ser	Ala	Glu	Glu	Tyr	Gln	Gln	Lys	Ile	Ile	Pro	Val	Val	Val	Lys
		355					360					365			
Met	Phe	Ser	Ser	Thr	Asp	Arg	Ala	Met	Arg	Ile	Arg	Leu	Leu	Gln	Gln
	370				375					380					
Met	Glu	Gln	Phe	Ile	Gln	Tyr	Leu	Asp	Glu	Pro	Thr	Val	Asn	Thr	Gln
385					390					395				400	
Ile	Phe	Pro	His	Val	Val	His	Gly	Phe	Leu	Asp	Thr	Asn	Pro	Ala	Ile
			405					410					415		
Arg	Glu	Gln	Thr	Val	Lys	Ser	Met	Leu	Leu	Leu	Ala	Pro	Lys	Leu	Asn
		420						425					430		
Glu	Ala	Asn	Leu	Asn	Val	Glu	Leu	Met	Lys	His	Phe	Ala	Arg	Leu	Gln
		435					440					445			
Ala	Lys	Asp	Glu	Gln	Gly	Pro	Ile	Arg	Cys	Asn	Thr	Thr	Val	Cys	Leu
	450					455				460					
Gly	Lys	Ile	Gly	Ser	Tyr	Leu	Ser	Ala	Ser	Thr	Arg	His	Arg	Val	Leu
465					470					475				480	
Thr	Ser	Ala	Phe	Ser	Arg	Ala	Thr	Arg	Asp	Pro	Phe	Ala	Pro	Ser	Arg
			485					490					495		
Val	Ala	Gly	Val	Leu	Gly	Phe	Ala	Ala	Thr	His	Asn	Leu	Tyr	Ser	Met
		500						505					510		
Asn	Asp	Cys	Ala	Gln	Lys	Ile	Leu	Pro	Val	Leu	Cys	Gly	Leu	Thr	Val
		515					520					525			
Asp	Pro	Glu	Lys	Ser	Val	Arg	Asp	Gln	Ala	Phe	Lys	Ala	Ile	Arg	Ser
	530					535				540					
Phe	Leu	Ser	Lys	Leu	Glu	Ser	Val	Ser	Glu	Asp	Pro	Thr	Gln	Leu	Glu
545					550					555				560	
Glu	Val	Glu	Lys	Asp	Val	His	Ala	Ala	Ser	Ser	Pro	Gly	Met	Gly	Gly
			565					570					575		
Ala	Ala	Ala	Ser	Trp	Ala	Gly	Trp	Ala	Val	Thr	Gly	Val	Ser	Ser	Leu
		580						585					590		
Thr	Ser	Lys	Leu	Ile	Arg	Ser	His	Pro	Thr	Thr	Ala	Pro	Thr	Glu	Thr
		595					600					605			
Asn	Ile	Pro	Gln	Arg	Pro	Thr	Pro	Glu	Gly	Val	Pro	Ala	Pro	Ala	Pro
	610					615						620			
Thr	Pro	Val	Pro	Ala	Thr	Pro	Thr	Thr	Ser	Gly	His	Trp	Glu	Thr	Gln
625					630					635				640	
Glu	Glu	Asp	Lys	Asp	Thr	Ala	Glu	Asp	Ser	Ser	Thr	Ala	Asp	Arg	Trp
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<210> 6237
<211> 494
<212> DNA
<213> Homo sapiens
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<210> 6238
<211> 141
<212> PRT
<213> Homo sapiens
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<400> 6238
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20	25	30	
Ser Thr Pro Lys Asn Gly Met Ser Ser Lys Ser Arg Lys Arg Ile Met			
35	40	45	
Pro Asp Pro Val Thr Glu Pro Pro Val Thr Asp Pro Val Tyr Glu Ala			
50	55	60	
Leu Leu Tyr Cys Asn Ile Pro Ser Val Ala Glu Arg Ser Met Glu Gly			
65	70	75	80
His Ala Pro His His Phe Lys Leu Val Ser Val His Val Phe Ile Arg			
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His Gly Asp Arg Tyr Pro Leu Tyr Val Ile Pro Lys Thr Lys Arg Pro			
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Glu Ile Asp Cys Thr Leu Val Ala Asn Arg Lys Pro Tyr His Pro Lys			
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<210> 6239

<211> 911

<212> DNA

<213> Homo sapiens

<400> 6239

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<210> 6240

<211> 235

<212> PRT

<213> Homo sapiens

<400> 6240

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Leu Glu Leu Leu Ser Pro Phe Gln Leu Tyr Phe Asn Pro His Leu Val
          35           40           45
Phe Arg Lys Phe Gln Val Trp Arg Leu Val Thr Asn Phe Leu Phe Phe
          50           55           60
Gly Pro Leu Gly Phe Ser Phe Phe Phe Asn Met Leu Phe Val Phe Arg
65           70           75           80
Tyr Cys Arg Met Leu Glu Glu Gly Ser Phe Arg Gly Arg Thr Ala Asp
          85           90           95
Phe Val Phe Met Phe Leu Phe Gly Gly Val Leu Met Thr Leu Leu Gly
          100          105          110
Leu Leu Gly Ser Leu Phe Phe Leu Gly Gln Ala Leu Met Ala Met Leu
          115          120          125
Val Tyr Val Trp Ser Arg Arg Ser Pro Arg Val Arg Val Asn Phe Phe
          130          135          140
Gly Leu Leu Thr Phe Gln Ala Pro Phe Leu Pro Trp Ala Leu Met Gly
145          150          155          160
Phe Ser Leu Leu Leu Gly Asn Ser Ile Leu Val Asp Leu Leu Gly Ile
          165          170          175
Ala Val Gly His Ile Tyr Tyr Phe Leu Glu Asp Val Phe Pro Asn Gln
          180          185          190
Pro Gly Gly Lys Arg Leu Leu Gln Thr Pro Gly Phe Leu Lys Leu Leu
          195          200          205
Leu Asp Ala Pro Ala Glu Asp Pro Asn Tyr Leu Pro Leu Pro Glu Glu
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<212> DNA

<213> Homo sapiens

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<210> 6242

<211> 245

<212> PRT

<213> Homo sapiens

<400> 6242

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<400> 6244

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          20           25           30
Gly Phe Leu Leu Trp Lys Ala Ile Pro Ser Phe Ala Ser Ser Thr Leu
          35           40           45
Arg Met Ser Ser Ser Leu His Ser Leu Trp Phe Val Pro Leu Val Ser
          50           55           60
Glu Glu Glu Val Leu Ile Ile Leu Ser Gly Ser Glu Cys Ser Thr Cys
65           70           75           80
Pro Tyr Val Leu Ser Tyr Pro Thr Ser Ser Leu Thr Leu Phe His Gln
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<210> 6245

<211> 6609

<212> DNA

<213> Homo sapiens

<400> 6245

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 Arg Ser Leu Glu Gln Arg Ile Val Glu Leu Ser Glu Ala Asn Lys Leu
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 Ala Ala Asn Ser Ser Leu Phe Thr Gln Arg Asn Met Lys Ala Gln Glu
 65 70 75 80
 Glu Met Ile Ser Glu Leu Arg Gln Gln Lys Phe Tyr Leu Glu Thr Gln
 85 90 95
 Ala Gly Lys Leu Glu Ala Gln Asn Arg Lys Leu Glu Glu Gln Leu Glu
 100 105 110
 Lys Ile Ser His Gln Asp His Ser Asp Lys Asn Arg Leu Leu Glu Leu
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Lys Phe Asp Ala Leu Arg Asn Ser Cys Thr Val Ile Thr Asp Leu Glu
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225          230          235          240
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Glu Ile Val Gln Leu Arg Ser Glu Val Asp His Leu Arg Arg Glu Ile
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Thr Glu Arg Glu Met Gln Leu Thr Ser Gln Lys Gln Thr Met Glu Ala
          275          280          285
Leu Lys Thr Thr Cys Thr Met Leu Glu Glu Gln Val Met Asp Leu Glu
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Ala Leu Asn Asp Glu Leu Leu Glu Lys Glu Arg Gln Trp Glu Ala Trp
305          310          315          320
Arg Ser Val Leu Gly Asp Glu Lys Ser Gln Phe Glu Cys Arg Val Arg
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Glu Leu Gln Arg Met Leu Asp Thr Glu Lys Gln Ser Arg Ala Arg Ala
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Asp Gln Arg Ile Thr Glu Ser Arg Gln Val Val Glu Leu Ala Val Lys
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385          390          395          400
Lys His Ala Met Leu Glu Met Asn Ala Arg Ser Leu Gln Gln Lys Leu
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Glu Thr Glu Arg Glu Leu Lys Gln Arg Leu Leu Glu Glu Gln Ala Lys
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Leu Gln Gln Gln Met Asp Leu Gln Lys Asn His Ile Phe Arg Leu Thr
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Gln Gly Leu Gln Glu Ala Leu Asp Arg Ala Asp Leu Lys Thr Glu
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Arg Ser Asp Leu Glu Tyr Gln Leu Glu Asn Ile Gln Val Leu Tyr Ser
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His Glu Lys Val Lys Met Glu Gly Thr Ile Ser Gln Gln Thr Lys Leu
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Ile Asp Phe Leu Gln Ala Lys Met Asp Gln Pro Ala Lys Lys Lys Lys
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Val Pro Leu Gln Tyr Asn Glu Leu Lys Leu Ala Leu Glu Lys Glu Lys
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5433

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Glu Glu Tyr Leu Leu Cys Phe His Glu Phe Gly Val Phe Val Asp Ser
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Tyr Gly Arg Arg Ser Arg Thr Asp Asp Leu Lys Trp Ser Arg Leu Pro
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Leu Ala Phe Ala Tyr Arg Glu Pro Tyr Leu Phe Val Thr His Phe Asn
      1090      1095      1100
Ser Leu Glu Val Ile Glu Ile Gln Ala Arg Ser Ser Ala Gly Thr Pro
1105      1110      1115      1120
Ala Arg Ala Tyr Leu Asp Ile Pro Asn Pro Arg Tyr Leu Gly Pro Ala
      1125      1130      1135
Ile Ser Ser Gly Ala Ile Tyr Leu Ala Ser Ser Tyr Gln Asp Lys Leu
      1140      1145      1150
Arg Val Ile Cys Cys Lys Gly Asn Leu Val Lys Glu Ser Gly Thr Glu
      1155      1160      1165
His His Arg Gly Pro Ser Thr Ser Arg Ser Ser Pro Asn Lys Arg Gly
      1170      1175      1180
Pro Pro Thr Tyr Asn Glu His Ile Thr Lys Arg Val Ala Ser Ser Pro
1185      1190      1195      1200
Ala Pro Pro Glu Gly Pro Ser His Pro Arg Glu Pro Ser Thr Pro His
      1205      1210      1215
Arg Tyr Arg Glu Gly Arg Thr Glu Leu Arg Arg Asp Lys Ser Pro Gly
      1220      1225      1230
Arg Pro Leu Glu Arg Glu Lys Ser Pro Gly Arg Met Leu Ser Thr Arg
      1235      1240      1245
Arg Glu Arg Ser Pro Gly Arg Leu Phe Glu Asp Ser Ser Arg Gly Arg
      1250      1255      1260
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<210> 6247

<211> 497

<212> DNA

<213> Homo sapiens

<400> 6247

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ggaatggtca gagaaaagac agaaaaaaga catcccttgg tcctggaggc agctatcaaa
360

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<210> 6248
 <211> 142
 <212> PRT
 <213> Homo sapiens

<400> 6248
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 Ala Ser Gln Arg Leu His Gly Gly Pro Cys Pro Gly Gly Ala Pro Pro
 35 40 45
 Arg Glu Thr Ala Gly Ser Arg Pro Ala Ala Arg Ser Pro Gly Arg Glu
 50 55 60
 Ile Leu Phe Ile Cys Ala Arg Gly Arg Arg Gly Asn Pro Cys Leu Ser
 65 70 75 80
 Leu Ser Gln Arg Arg Val Glu Ala Ala His Val Leu Gly His Arg Glu
 85 90 95
 Trp Ser Glu Lys Arg Gln Lys Lys Asp Ile Pro Trp Ser Trp Arg Gln
 100 105 110
 Leu Ser Asn Ile Arg Ala Cys Ser Arg Gly Ile Pro Ala Cys Glu Tyr
 115 120 125
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<210> 6249
 <211> 1217
 <212> DNA
 <213> Homo sapiens

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 420
 ctctttaatg ttgctgggtt tgtccatcat ggaactgtcc tggattgtga ggagaaagac
 480

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 1217

<210> 6250
 <211> 245
 <212> PRT
 <213> Homo sapiens

<400> 6250
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 35 40 45
 Tyr Pro Gly Ile Gln Thr Arg Val Leu Asp Val Thr Lys Lys Lys Gln
 50 55 60
 Ile Asp Gln Phe Ala Asn Glu Val Glu Arg Leu Asp Val Leu Phe Asn
 65 70 75 80
 Val Ala Gly Phe Val His His Gly Thr Val Leu Asp Cys Glu Glu Lys
 85 90 95
 Asp Trp Asp Phe Ser Met Asn Leu Asn Val Arg Ser Met Tyr Leu Met
 100 105 110
 Ile Lys Ala Phe Leu Pro Lys Met Leu Ala Gln Lys Ser Gly Asn Ile
 115 120 125
 Ile Asn Met Ser Ser Val Ala Ser Ser Val Lys Gly Val Val Asn Arg
 130 135 140
 Cys Val Tyr Ser Thr Thr Lys Ala Ala Val Ile Gly Leu Thr Lys Ser
 145 150 155 160
 Val Ala Ala Asp Phe Ile Gln Gln Gly Ile Arg Cys Asn Cys Val Cys

	165		170		175
Pro Gly Thr Val Asp Thr Pro Ser Leu Gln Glu Arg Ile Gln Ala Arg					
	180		185		190
Gly Asn Pro Glu Glu Ala Arg Asn Asp Phe Leu Lys Arg Gln Lys Thr					
	195		200		205
Gly Arg Phe Ala Thr Ala Glu Glu Ile Ala Met Leu Cys Val Tyr Leu					
	210		215		220
Ala Ser Asp Glu Ser Ala Tyr Val Thr Gly Asn Pro Val Ile Ile Asp					
225	230		235		240
Gly Gly Trp Ser Leu					
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<210> 6251

<211> 1611

<212> DNA

<213> Homo sapiens

<400> 6251

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1080

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<210> 6252

<211> 100

<212> PRT

<213> Homo sapiens

<400> 6252

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		20						25					30		
Ile	Ser	Gly	Lys	Thr	Gly	Ile	His	Phe	Lys	Ile	Ser	Ala	Gln	Lys	Gly
	35					40						45			
Ser	Arg	Ala	Val	Leu	Lys	Pro	Gly	Arg	Gln	Gly	Pro	Pro	Ile	Pro	Thr
	50				55						60				
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65				70					75				80		
Arg	Glu	Ser	His	His	Ile	Tyr	Tyr	Glu	Ala	Arg	Ala	Leu	Gly	Tyr	Val
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<210> 6253

<211> 1953

<212> DNA

<213> Homo sapiens

<400> 6253

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 240

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 1920
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 1953

<210> 6254
 <211> 216
 <212> PRT
 <213> Homo sapiens

<400> 6254
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 35 40 45
 Glu Gly Glu Asp Leu Asn Glu Trp Ile Ala Val Asn Thr Val Asp Phe
 50 55 60
 Phe Asn Gln Ile Asn Met Leu Tyr Gly Thr Ile Thr Glu Phe Cys Thr
 65 70 75 80
 Glu Ala Ser Cys Pro Val Met Ser Ala Gly Pro Arg Tyr Glu Tyr His
 85 90 95
 Trp Ala Asp Gly Thr Asn Ile Lys Lys Pro Ile Lys Cys Ser Ala Pro
 100 105 110
 Lys Tyr Ile Asp Tyr Leu Met Thr Trp Val Gln Asp Gln Leu Asp Asp
 115 120 125
 Glu Thr Leu Phe Pro Ser Lys Ile Gly Val Pro Phe Pro Lys Asn Phe
 130 135 140
 Met Ser Val Ala Lys Thr Ile Leu Lys Arg Leu Phe Arg Val Tyr Ala
 145 150 155 160
 His Ile Tyr His Gln His Phe Asp Ser Val Met Gln Leu Gln Glu Glu
 165 170 175
 Ala His Leu Asn Thr Ser Phe Lys His Phe Ile Phe Phe Val Gln Glu
 180 185 190
 Phe Asn Leu Ile Asp Arg Arg Glu Leu Ala Pro Leu Gln Glu Leu Ile
 195 200 205
 Glu Lys Leu Gly Ser Lys Asp Arg
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<210> 6255
 <211> 622
 <212> DNA
 <213> Homo sapiens

<400> 6255
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<210> 6256
 <211> 150
 <212> PRT
 <213> Homo sapiens

<400> 6256
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 His Pro Arg Val Val Glu Leu Pro Lys Thr Asp Glu Gly Leu Gly Phe
 35 40 45
 Asn Ile Met Gly Gly Lys Glu Gln Asn Ser Pro Ile Tyr Ile Ser Arg
 50 55 60
 Val Ile Pro Gly Gly Val Ala Asp Arg His Gly Gly Leu Lys Arg Gly
 65 70 75 80
 Asp Gln Leu Leu Ser Val Asn Gly Val Ser Val Glu Gly Glu Gln His
 85 90 95
 Glu Lys Ala Val Glu Leu Leu Lys Ala Ala Gln Gly Ser Val Lys Leu
 100 105 110
 Val Val Arg Tyr Thr Pro Arg Val Leu Glu Glu Met Glu Ala Arg Phe
 115 120 125
 Glu Lys Met Arg Ser Ala Arg Arg Arg Gln Gln His Gln Ser Tyr Ser
 130 135 140
 Ser Leu Glu Ser Arg Gly
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<210> 6257
 <211> 2216
 <212> DNA
 <213> Homo sapiens

<400> 6257
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<210> 6258

<211> 340

<212> PRT

<213> Homo sapiens

<400> 6258

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Ser	Pro	Cys	Gly	Lys	Phe	Leu	Ala	Ala	Gly	Asn	Asn	Tyr	Gly	Gln	Ile
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Ala	Ile	Phe	Ser	Leu	Ser	Ser	Ala	Leu	Ser	Ser	Glu	Ala	Lys	Glu	Glu
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Ser	Lys	Lys	Pro	Val	Val	Thr	Phe	Gln	Ala	His	Asp	Gly	Pro	Val	Tyr
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Ser	Met	Val	Ser	Thr	Asp	Arg	His	Leu	Leu	Ser	Ala	Gly	Asp	Gly	Glu
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Val	Lys	Ala	Trp	Leu	Trp	Ala	Glu	Met	Leu	Lys	Lys	Gly	Cys	Lys	Glu
			100					105					110		
Leu	Trp	Arg	Arg	Gln	Pro	Pro	Tyr	Arg	Thr	Ser	Leu	Glu	Val	Pro	Glu
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Ile	Asn	Ala	Leu	Leu	Leu	Val	Pro	Lys	Glu	Asn	Ser	Leu	Ile	Leu	Ala
	130					135					140				
Gly	Gly	Asp	Cys	Gln	Leu	His	Thr	Met	Asp	Leu	Glu	Thr	Gly	Thr	Phe
145				150					155					160	
Thr	Arg	Val	Leu	Arg	Gly	His	Thr	Asp	Tyr	Ile	His	Cys	Leu	Ala	Leu
				165					170					175	
Arg	Glu	Arg	Ser	Pro	Glu	Val	Leu	Ser	Gly	Gly	Glu	Asp	Gly	Ala	Val
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Ile	Ser	Thr	Arg	Ser	Ala	Arg	Gly	Pro	Thr	Met	Gly	Ala	Gly	Leu	Asp
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Val	Trp	Thr	Asp	Ser	Asp	Trp	Met	Val	Cys	Gly	Gly	Gly	Pro	Ala	Leu
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Thr	Leu	Trp	His	Leu	Arg	Ser	Ser	Thr	Pro	Thr	Thr	Ile	Phe	Pro	Ile
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Ala Gly Gln Gly Arg Cys Val Asn Gln Trp Gln Leu Ser Gly Glu Leu					
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Lys Ala Gln Val Pro Gly Ser Ser Pro Gly Leu Leu Ser Leu Ser Leu					
	290		295		300
Asn Gln Gln Pro Ala Ala Pro Glu Cys Lys Val Leu Thr Ala Ala Gly					
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<210> 6259

<211> 384

<212> DNA

<213> Homo sapiens

<400> 6259

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<211> 128

<212> PRT

<213> Homo sapiens

<400> 6260

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Gln Lys Asn Glu Lys Ile Lys Tyr Ser Arg Phe Ala Ala Thr Asn Thr					
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Arg Val Lys Ala Lys Gln Lys Pro Leu Ile Ser Asn Ser His Thr Asp					
	50		55		60
His Leu Met Gly Cys Thr Lys Ser Ala Glu Pro Gly Thr Glu Thr Ser					
65		70		75	80
Gln Val Asn Ser Phe Ser Asp Leu Lys Ala Ser Thr Leu Val His Lys					
	85		90		95
Pro Gln Ser Asp Phe Thr Asn Asp Ala Leu Ser Pro Lys Phe Asn Leu					
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Ser Ser Ser Ile Ser Ser Glu Asn Ser Leu Ile Lys Gly Gly Ala Ala					

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<212> DNA
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 <212> PRT
 <213> Homo sapiens

<400> 6262
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 50 55 60
 Gly Thr Leu Asn Lys Val Phe Ala Ser Gln Trp Leu Asn His Arg Gln
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 Val Val Cys Gly Thr Lys Cys Asn Thr Leu Phe Val Val Asp Val Gln
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 100 105 110
 Gly Val Thr Gln Gln Gly Cys Gly Ile His Ala Ile Glu Leu Asn Pro
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 Ser Arg Thr Leu Leu Ala Thr Gly Gly Asp Asn Pro Asn Ser Leu Ala
 130 135 140
 Ile Tyr Arg Leu Pro Thr Leu Asp Pro Val Cys Val Gly Asp Asp Gly
 145 150 155 160
 His Lys Asp Trp Ile Phe Ser Ile Ala Trp Ile Ser Asp Thr Met Ala
 165 170 175
 Val Ser Gly Ser Arg Asp Gly Ser Met Gly Leu Trp Glu Val Thr Asp
 180 185 190
 Asp Val Leu Thr Lys Ser Asp Ala Arg His Asn Val Ser Arg Val Pro

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Val Tyr Ala His Ile Thr His Lys Ala Leu Lys Asp Ile Pro Lys Glu		
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Asp Thr Asn Pro Asp Asn Cys Lys Val Arg Ala Leu Ala Phe Asn Asn		
225	230	235
Lys Asn Lys Glu Leu Gly Ala Val Ser Leu Asp Gly Tyr Phe His Leu		
245	250	255
Trp Lys Ala Glu Asn Thr Leu Ser Lys Leu Leu Ser Thr Lys Leu Pro		
260	265	270
Tyr Cys Arg Glu Asn Val Cys Leu Ala Tyr Gly Ser Glu Trp Ser Val		
275	280	285
Tyr Ala Val Gly Ser Gln Ala His Val Ser Phe Leu Asp Pro Arg Gln		
290	295	300
Pro Ser Tyr Asn Val Lys Ser Val Cys Ser Arg Glu Arg Gly Ser Gly		
305	310	315
Ile Arg Ser Val Ser Phe Tyr Glu His Ile Ile Thr Val Gly Thr Gly		
325	330	335
Gln Gly Ser Leu Leu Phe Tyr Asp Ile Arg Ala Gln Arg Phe Leu Glu		
340	345	350
Glu Arg Leu Ser Ala Cys Tyr Gly Ser Lys Pro Arg Leu Ala Gly Glu		
355	360	365
Asn Leu Lys Leu Thr Thr Gly Lys Gly Trp Leu Asn His Asp Glu Thr		
370	375	380
Trp Arg Asn Tyr Phe Ser Asp Ile Asp Phe Phe Pro Asn Ala Val Tyr		
385	390	395
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 <212> DNA
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 Asn Gly Ile Leu Gln Ser Glu Tyr Gly Gly Glu Thr Ile Pro Gly Pro
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 Ser Ser Ala Phe Arg Pro Val Met Pro Ser Arg Gln Ile Val Glu Arg
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 Pro Ser Ser Ser Ser His Ala Gly Ala Leu Gln Glu Ser Leu Asn Gln
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 Leu Asn Phe Ser Gly Ser Ser Thr Ile Gln Glu Val Lys Arg Asn Val
 210 215 220
 Tyr Asp Leu Thr Ser Ile Pro Val Arg His Gln Leu Trp Glu Gly Trp
 225 230 235 240
 Pro Thr Ser Ala Thr Asp Asp Ser Met Cys Leu Ala Glu Ser Gly Leu
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 Ser Tyr Pro Cys His Arg Leu Thr Val Gly Arg Arg Ser Ser Pro Ala
 260 265 270
 Gln Thr Arg Glu Gln Ser Glu Glu Gln Ile Thr Asp Val His Met Val

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Asp Asp Gly Glu Val Phe Gly Met Ala Ser Ser Ala Leu Arg Lys Ser
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Pro Met Ile Cys Phe Leu Val Pro Glu Asn Ala Glu Asn Glu Gly Asp
      325              330              335
Ala Leu Leu Gln Phe Thr Ala Glu Phe Ser Ser Arg Tyr Gly Asp Cys
      340              345              350
His Pro Val Phe Phe Ile Gly Ser Leu Glu Ala Ala Phe Gln Glu Ala
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Phe Tyr Val Lys Ala Arg Asp Arg Lys Leu Leu Ala Ile Tyr Leu His
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His Asp Glu Ser Val Leu Thr Asn Val Phe Cys Ser Gln Met Leu Cys
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      420              425              430
Asn Arg His Phe Gly Ser Val Val Ala Gln Thr Ile Arg Thr Gln Lys
      435              440              445
Thr Asp Gln Phe Pro Leu Phe Leu Ile Ile Met Gly Lys Arg Ser Ser
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Glu Asp Ile Lys Asp Glu Asp Glu Arg Glu Ala Arg Glu Asn Val Lys
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Ser Lys Gly Phe Pro Trp Asp Glu Tyr Lys Leu Leu Ser Thr Phe Pro
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<210> 6265

<211> 1344

<212> DNA

<213> Homo sapiens

<400> 6265

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<210> 6266

<211> 240

<212> PRT

<213> Homo sapiens

<400> 6266

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Thr Val Arg Glu His Arg Asp Gly Gly His Ala Gly Gly Ile Phe Asn
      50           55           60
Arg Tyr Asn Ile Leu Lys Ile Gln Lys Val Cys Asn Lys Lys Leu Trp
      65           70           75           80
Glu Arg Tyr Thr His Arg Arg Lys Glu Val Ser Glu Glu Asn His Asn
      85           90           95
His Ala Asn Glu Arg Met Leu Phe His Gly Ser Pro Phe Val Asn Ala
      100          105          110
Ile Ile His Lys Gly Phe Asp Glu Arg His Ala Tyr Ile Gly Gly Met
      115          120          125
Phe Gly Ala Gly Ile Tyr Phe Ala Glu Asn Ser Ser Lys Ser Asn Gln
      130          135          140
Tyr Val Tyr Gly Ile Gly Gly Gly Thr Gly Cys Pro Val His Lys Asp
      145          150          155          160
Arg Ser Cys Tyr Ile Cys His Arg Gln Leu Leu Phe Cys Arg Val Thr
      165          170          175
Leu Gly Lys Ser Phe Leu Gln Phe Ser Ala Met Lys Met Ala His Ser
      180          185          190
Pro Pro Gly His His Ser Val Thr Gly Arg Pro Ser Val Asn Gly Leu
      195          200          205
Ala Leu Ala Glu Tyr Val Ile Tyr Arg Gly Glu Gln Ala Tyr Pro Glu
      210          215          220
Tyr Leu Ile Thr Tyr Gln Ile Met Arg Pro Glu Gly Met Val Asp Gly
      225          230          235          240

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<210> 6267

<211> 328

<212> DNA

<213> Homo sapiens

<400> 6267

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gggagagggg agggctaagc agagtgggga tgcccggcag tgaccagacc tctctcccca
120

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gatgagcctt tcctgcagtt ccgaaggaac gtgttcttcc caaagcggcg ggagctccag
180

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atccatgacg aggaggtcct gcggtgctc tatgaggagg ccaagggcaa cgtgctggct
240

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gcacgggtacc cgtgcgacgt ggaggactgc gaggtcttgg gcgccctggg gtgccgcgtg
300

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328

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<210> 6268

<211> 83

<212> PRT

<213> Homo sapiens

<400> 6268

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 20 25 30
 Leu Gln Ile His Asp Glu Glu Val Leu Arg Leu Leu Tyr Glu Glu Ala
 35 40 45
 Lys Gly Asn Val Leu Ala Ala Arg Tyr Pro Cys Asp Val Glu Asp Cys
 50 55 60
 Glu Ala Leu Gly Ala Leu Val Cys Arg Val Gln Leu Gly Pro Tyr Gln
 65 70 75 80
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<210> 6269

<211> 923

<212> DNA

<213> Homo sapiens

<400> 6269

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 120
 aacgtgatgg ttctccagga cgaaaatttt gtcagtaaag aagagttcca ggcagtggag
 180
 aagaagctgg tggaagagaa agctgcccac gccaaaacca aggtcctcct ggccaaggaa
 240
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 300
 gagaagctgg cctttgaaaa agcgctctcc agtgtcaaga gcaaagtcct tcaggagtcc
 360
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 420
 gaagatatac ttaatggcaa agagaatgag attaaagagt tgcagcaagt tatcagccag
 480
 cagaaacaga tcttcagccc accaccagcc ggctccgttg caggaatcac atgtctgact
 540
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 600
 aagcctcagg gacacgtcag gcccgagcc accagcatcc cagggaaaaa taaaatggcc
 660
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 720
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 780
 ggggcttgta gcctagggga ggagctgggt ctttggtgtc tggtaggcac caccgcttcc
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<210> 6270

<211> 307

<212> PRT

<213> Homo sapiens

<400> 6270

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Xaa Arg Lys Met Ala Thr Pro Leu Gly Trp Ser Lys Ala Gly Ser Gly
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      20           25           30
Glu Glu Leu Ile His Gln Leu Arg Asn Val Met Val Leu Gln Asp Glu
      35           40           45
Asn Phe Val Ser Lys Glu Glu Phe Gln Ala Val Glu Lys Lys Leu Val
      50           55           60
Glu Glu Lys Ala Ala His Ala Lys Thr Lys Val Leu Leu Ala Lys Glu
      65           70           75           80
Glu Glu Lys Leu Gln Phe Ala Leu Gly Glu Val Glu Val Leu Ser Lys
      85           90           95
Gln Leu Glu Lys Glu Lys Leu Ala Phe Glu Lys Ala Leu Ser Ser Val
      100          105          110
Lys Ser Lys Val Leu Gln Glu Ser Ser Lys Lys Asp Gln Leu Ile Thr
      115          120          125
Lys Cys Asn Glu Ile Glu Ser His Ile Ile Lys Gln Glu Asp Ile Leu
      130          135          140
Asn Gly Lys Glu Asn Glu Ile Lys Glu Leu Gln Gln Val Ile Ser Gln
      145          150          155          160
Gln Lys Gln Ile Phe Ser Pro Pro Pro Ala Gly Ser Val Ala Gly Ile
      165          170          175
Thr Cys Leu Thr Ser Gly Ser Arg Ser Ser Arg Lys Ala Thr Trp Pro
      180          185          190
Arg Cys Trp Thr Arg Ser Ile Arg Lys Pro Gln Gly His Val Arg Pro
      195          200          205
Ala Ala Thr Ser Ile Pro Gly Lys Asn Lys Met Ala Ala Ala Phe Leu
      210          215          220
Phe Ser Gly Cys Asn Pro Gln Pro Leu Pro Ser Leu Leu Trp Glu Ser
      225          230          235          240
Pro Ala Ser Ser Pro Cys Tyr Phe Pro Pro Ser Trp Ile Val Val Gly
      245          250          255
Val His Lys Val Gly Ala Cys Ser Leu Gly Glu Glu Leu Gly Leu Cys
      260          265          270
Cys Leu Val Gly Thr Thr Ala Ser Phe Gly Tyr Leu Ile Pro Ser Tyr
      275          280          285
Ile Asn Ser Pro Gly Tyr Pro Val Ile Phe His Pro Thr Pro Ser Val
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Leu Val Asn
305

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<210> 6271

<211> 1437

<212> DNA

<213> Homo sapiens

<400> 6271

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180
agtggagctg gaatggtgag accaacatcc gtgacacctg gactctttca ggttctgaag
240
gctgtatact ttgcatgtta ctccaaagcc aaagagcaat ttaatggcat tttcgtgcct
300
aacagcaata ttgtgcatct tttctcagct ggctctgcag cttttatcac aaattcctta
360
atgaatccta tatggatggt taaaacccga atgcagctag aacagaaagt gaggggctct
420
aagcagatga atacactcca gtgtgctcgt tacgtttacc agaccgaagg cattcgtggc
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720
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1140
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1437

<210> 6272

<211> 296

<212> PRT

<213> Homo sapiens

<400> 6272

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Leu Glu Val	Ile Lys Thr Arg Leu Gln Ser Ser Arg	Leu Ala Leu Arg	
35	40	45	
Thr Val Tyr	Tyr Pro Gln Val His Leu Gly Thr	Ile Ser Gly Ala Gly	
50	55	60	
Met Val Arg	Pro Thr Ser Val Thr Pro Gly Leu Phe	Gln Val Leu Lys	
65	70	75	80
Ala Val Tyr	Phe Ala Cys Tyr Ser Lys Ala Lys	Glu Gln Phe Asn Gly	
85	90	95	
Ile Phe Val	Pro Asn Ser Asn Ile Val His Leu Phe	Ser Ala Gly Ser	
100	105	110	
Ala Ala Phe	Ile Thr Asn Ser Leu Met Asn Pro	Ile Trp Met Val Lys	
115	120	125	
Thr Arg Met	Gln Leu Glu Gln Lys Val Arg Gly	Ser Lys Gln Met Asn	
130	135	140	
Thr Leu Gln	Cys Ala Arg Tyr Val Tyr Gln Thr	Glu Gly Ile Arg Gly	
145	150	155	160
Phe Tyr Arg	Gly Leu Thr Ala Ser Tyr Ala Gly	Ile Ser Glu Thr Ile	
165	170	175	
Ile Cys Phe	Ala Ile Tyr Glu Ser Leu Lys Lys	Tyr Leu Lys Glu Ala	
180	185	190	
Pro Leu Ala	Ser Ser Ala Asn Gly Thr Glu Lys	Asn Ser Thr Ser Phe	
195	200	205	
Phe Gly Leu	Met Ala Ala Ala Leu Ser Lys	Gly Cys Ala Ser Cys	
210	215	220	
Ile Ala Tyr	Pro His Glu Val Ile Arg Thr Arg	Leu Arg Glu Glu Gly	
225	230	235	240
Thr Lys Tyr	Lys Ser Phe Val Gln Thr Ala Arg	Leu Val Phe Arg Glu	
245	250	255	
Glu Gly Tyr	Leu Ala Phe Tyr Arg Gly Leu Phe	Ala Gln Leu Ile Arg	
260	265	270	
Gln Ile Pro	Asn Thr Ala Ile Val Leu Ser Thr	Tyr Glu Leu Ile Val	
275	280	285	
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<210> 6273

<211> 2355

<212> DNA

<213> Homo sapiens

<400> 6273

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120

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180

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240

gctgacaagc gggacccaga gtttgtcttc tacgaccagc tgaagcaagt gatgaatgcg
300

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360
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420
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 2220
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 2340
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<210> 6274
 <211> 70
 <212> PRT
 <213> Homo sapiens

<400> 6274
 Asp Pro Glu Phe Val Phe Tyr Asp Gln Leu Lys Gln Val Met Asn Ala
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 Tyr Arg Val Lys Pro Ala Val Phe Asp Leu Leu Leu Ala Val Gly Ile
 20 25 30
 Ala Ala Tyr Leu Gly Met Ala Tyr Val Ala Val Gln Val Ser Ser Ala
 35 40 45
 Gln Ala Gln His Phe Ser Leu Leu Tyr Lys Thr Val Gln Arg Leu Leu
 50 55 60
 Val Lys Ala Lys Thr Gln
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<210> 6275
 <211> 1534
 <212> DNA
 <213> Homo sapiens

<400> 6275
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 240
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 420

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<210> 6276

<211> 172

<212> PRT

<213> Homo sapiens

<400> 6276

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		20						25					30		
Asp	Asp	Leu	Ser	Asn	Ala	Ala	Arg	Glu	Leu	Arg	Val	Leu	Ile	Asp	Asp
		35					40					45			
Ser	Gln	Ser	Ile	Ile	Phe	Ile	Asn	Leu	Asp	Ser	His	Arg	Asn	Val	Met
	50					55					60				
Ile	Arg	Leu	Asn	Leu	Gln	Leu	Thr	Met	Gly	Thr	Phe	Ser	Leu	Ser	Leu

65		70		75		80									
Phe	Gly	Leu	Met	Gly	Val	Ala	Phe	Gly	Met	Asn	Leu	Glu	Ser	Ser	Leu
			85						90					95	
Glu	Glu	Asp	His	Arg	Ile	Phe	Trp	Leu	Ile	Thr	Gly	Ile	Met	Phe	Met
			100					105					110		
Gly	Ser	Gly	Leu	Ile	Trp	Arg	Arg	Leu	Leu	Ser	Phe	Leu	Gly	Arg	Gln
		115					120					125			
Leu	Glu	Ala	Pro	Leu	Pro	Pro	Met	Met	Ala	Ser	Leu	Pro	Lys	Lys	Thr
		130				135					140				
Leu	Leu	Ala	Asp	Arg	Ser	Met	Glu	Leu	Lys	Asn	Ser	Leu	Arg	Leu	Asp
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<210> 6277

<211> 1206

<212> DNA

<213> Homo sapiens

<400> 6277

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 180
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 300
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 480
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 900
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 1020

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 1080
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<210> 6278

<211> 399

<212> PRT

<213> Homo sapiens

<400> 6278

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Gly	Val	Lys	Leu	Met	Asp	Phe	Gln	Ala	His	Arg	Arg	Gly	Gly	Thr	Leu
		20					25					30			
Asn	Arg	Lys	His	Ile	Ser	Pro	Ala	Phe	Gln	Pro	Pro	Leu	Pro	Pro	Thr
		35					40					45			
Asp	Gly	Ser	Thr	Val	Val	Pro	Ala	Gly	Pro	Glu	Pro	Pro	Pro	Gln	Ser
	50					55				60					
Ser	Arg	Ala	Glu	Ser	Ser	Ser	Gly	Gly	Gly	Thr	Val	Pro	Ser	Ser	Ala
65					70					75					80
Gly	Ile	Leu	Glu	Gln	Gly	Pro	Ser	Pro	Gly	Asp	Gly	Ser	Pro	Pro	Lys
			85					90					95		
Pro	Lys	Asp	Pro	Val	Ser	Ala	Ala	Val	Pro	Ala	Pro	Xaa	Glu	Lys	Gln
		100						105					110		
Gln	Ser	Asp	Ser	Ile	Trp	Pro	Lys	Ser	Ala	Pro	Gly	Ser	Cys	Trp	Leu
		115					120					125			
Pro	Pro	Ala	Leu	His	Gly	Pro	Pro	His	Asn	Ala	Ala	Gly	Pro	Ser	Pro
	130					135					140				
His	Thr	Leu	Arg	Arg	Ala	Val	Lys	Lys	Pro	Ala	Pro	Ala	Pro	Pro	Lys
145					150					155					160
Pro	Gly	Asn	Pro	Pro	Pro	Gly	His	Pro	Gly	Gly	Gln	Ser	Ser	Ser	Gly
			165					170					175		
Thr	Ser	Gln	His	Pro	Pro	Ser	Leu	Ser	Pro	Lys	Pro	Pro	Thr	Arg	Ser
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Lys	Ile	Val	Thr	Asp	Ser	Asn	Ser	Arg	Val	Ser	Glu	Pro	His	Arg	Ser
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<211> 2795

<212> DNA

<213> Homo sapiens

<400> 6279

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 <212> PRT
 <213> Homo sapiens

<400> 6280

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Asn	Glu	Arg	Pro	Ser	Ala	Gly	Ser	Lys	Ala	Asn	Lys	Glu	Phe	Gly	Asp				
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Ser	Leu	Ser	Leu	Glu	Ile	Leu	Gln	Ile	Ile	Lys	Glu	Ser	Gln	Gln	Gln				
			50			55					60								
His	Gly	Leu	Arg	His	Gly	Asp	Phe	Gln	Arg	Tyr	Arg	Gly	Tyr	Cys	Ser				
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Arg	Arg	Gln	Arg	Arg	Leu	Arg	Lys	Thr	Leu	Asn	Phe	Lys	Met	Gly	Asn				
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Arg	His	Lys	Phe	Thr	Gly	Lys	Lys	Val	Thr	Glu	Glu	Leu	Leu	Thr	Asp				
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Tyr	Ala	Met	Gln	Leu	Lys	Gln	Glu	Ala	Asn	Thr	Glu	Pro	Arg	Lys	Arg				
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			180					185					190						
His	Gln	Glu	Trp	Lys	Ala	Ala	Ile	Glu	Ala	Phe	Asn	Lys	Cys	Lys	Thr				
			195				200					205							
Ile	Tyr	Glu	Lys	Leu	Ala	Ser	Ala	Phe	Thr	Glu	Glu	Gln	Ala	Val	Leu				
			210			215						220							
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Lys Arg Asn Glu Asn Met Ala Lys Gly Leu His Arg Ala Leu Leu Gln
385          390          395          400
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          405          410          415
Ile Arg Leu Tyr Asp Ile Ile Leu Gln Asn Leu Val Glu Leu Leu Gln
          420          425          430
Leu Pro Gly Leu Glu Glu Asp Lys Ala Phe Gln Lys Glu Ile Gly Leu
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Lys Thr Leu Val Phe Lys Ala Tyr Arg Cys Phe Phe Ile Ala Gln Ser
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Tyr Val Leu Val Lys Lys Trp Ser Glu Ala Leu Val Leu Tyr Asp Arg
465          470          475          480
Val Leu Lys Tyr Ala Asn Glu Val Asn Ser Asp Ala Gly Ala Phe Lys
          485          490          495
Asn Ser Leu Lys Asp Leu Pro Asp Val Gln Glu Leu Ile Thr Gln Val
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Arg Ser Glu Lys Cys Ser Leu Gln Ala Ala Ala Ile Leu Asp Ala Asn
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Asp Ala His Gln Thr Glu Thr Ser Ser Ser Gln Val Lys Asp Asn Lys
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Pro Leu Val Glu Arg Phe Glu Thr Phe Cys Leu Asp Pro Ser Leu Val
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Thr Lys Gln Ala Asn Leu Val His Phe Pro Pro Gly Phe Gln Pro Ile
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Pro Cys Lys Pro Leu Phe Phe Asp Leu Ala Leu Asn His Val Ala Phe
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<210> 6281

<211> 741

<212> DNA

<213> Homo sapiens

<400> 6281

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<210> 6282

<211> 162

<212> PRT

<213> Homo sapiens

<400> 6282

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			20					25					30		
Glu	Lys	Lys	Gln	Met	Val	Ala	Asn	Val	Glu	Lys	Gln	Leu	Glu	Glu	Ala
		35					40					45			
Lys	Glu	Leu	Leu	Glu	Gln	Met	Asp	Leu	Glu	Val	Arg	Glu	Ile	Pro	Pro
		50				55					60				
Gln	Ser	Arg	Gly	Met	Tyr	Ser	Asn	Arg	Met	Arg	Ser	Tyr	Lys	Gln	Glu
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Asp	Glu	Val	Arg	Asn	Glu	Leu	Leu	Gly	Asp	Asp	Gly	Asn	Ser	Ser	Glu
			100					105					110		
Asn	Gln	Arg	Ala	His	Leu	Leu	Asp	Asn	Thr	Glu	Arg	Leu	Glu	Arg	Ser
		115					120					125			
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<210> 6283

<211> 2312

<212> DNA

<213> Homo sapiens

<400> 6283

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<210> 6284

<211> 122

<212> PRT

<213> Homo sapiens

<400> 6284

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			20					25					30		
Lys	Pro	Ile	His	Val	Phe	Phe	Gly	Ala	Ala	Ile	Leu	Ser	Leu	Ser	Ile
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<210> 6285

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<212> DNA

<213> Homo sapiens

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<210> 6286
 <211> 57
 <212> PRT
 <213> Homo sapiens

<400> 6286
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<210> 6287
 <211> 1674
 <212> DNA
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<210> 6288

<211> 269
 <212> PRT
 <213> Homo sapiens

<400> 6288

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Asp Val Lys Asn Phe Tyr Leu Met Thr Asn Gly Phe His Met Thr Trp
          35           40           45
Ser Val Lys Leu Asp Glu His Ile Ile Pro Leu Gly Ser Met Ala Ile
          50           55           60
Asn Ser Ile Ser Lys Leu Thr Gln Leu Thr Gln Ser Ser Met Tyr Ser
65           70           75           80
Leu Pro Asn Ala Pro Thr Leu Ala Asp Leu Glu Asp Asp Thr His Glu
          85           90           95
Ala Ser Asp Asp Gln Pro Glu Lys Pro His Phe Asp Ser Arg Ser Val
          100          105          110
Ile Phe Glu Leu Asp Ser Cys Asn Gly Ser Gly Lys Val Cys Leu Val
          115          120          125
Tyr Lys Ser Gly Lys Pro Ala Leu Ala Glu Asp Thr Glu Ile Trp Phe
          130          135          140
Leu Asp Arg Ala Leu Tyr Trp His Phe Leu Thr Asp Thr Phe Thr Ala
          145          150          155          160
Tyr Tyr Arg Leu Leu Ile Thr His Leu Gly Leu Pro Gln Trp Gln Tyr
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Ala Phe Thr Ser Tyr Gly Ile Ser Pro Gln Ala Lys Gln Trp Phe Ser
          180          185          190
Met Tyr Lys Pro Ile Thr Tyr Asn Thr Asn Leu Leu Thr Glu Glu Thr
          195          200          205
Asp Ser Phe Val Asn Lys Leu Asp Pro Ser Lys Val Phe Lys Ser Lys
          210          215          220
Asn Lys Ile Val Ile Pro Lys Lys Lys Gly Pro Val Gln Pro Ala Gly
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Gly Gln Lys Gly Pro Ser Gly Pro Ser Gly Pro Ser Thr Ser Ser Thr
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Ser Lys Ser Ser Ser Gly Ser Gly Asn Pro Thr Arg Lys
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<210> 6289
 <211> 1321
 <212> DNA
 <213> Homo sapiens

<400> 6289

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240

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<210> 6290

<211> 172

<212> PRT

<213> Homo sapiens

<400> 6290

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			20					25					30		
Ser	Pro	Asp	Glu	Gly	Leu	Ile	Glu	Asp	Leu	Thr	Ile	Glu	Asp	Lys	Ala
			35				40					45			
Val	Glu	Gln	Leu	Ala	Glu	Gly	Leu	Leu	Ser	His	Tyr	Leu	Pro	Asp	Leu
			50				55					60			
Gln	Arg	Ser	Lys	Gln	Ala	Leu	Gln	Glu	Leu	Thr	Gln	Asn	Gln	Val	Val

65		70		75		80									
Leu	Leu	Asp	Thr	Leu	Glu	Gln	Glu	Ile	Ser	Lys	Phe	Lys	Glu	Cys	His
		85							90					95	
Ser	Met	Leu	Asp	Ile	Asn	Ala	Leu	Phe	Ala	Glu	Ala	Lys	His	Tyr	His
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Ala	Lys	Leu	Val	Asn	Ile	Arg	Lys	Glu	Met	Leu	Met	Leu	His	Glu	Lys
		115					120					125			
Thr	Ser	Lys	Leu	Lys	Lys	Arg	Ala	Leu	Lys	Leu	Gln	Gln	Lys	Arg	Gln
		130				135					140				
Lys	Glu	Glu	Leu	Glu	Arg	Glu	Gln	Gln	Arg	Glu	Lys	Gly	Phe	Glu	Arg
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<210> 6291

<211> 2718

<212> DNA

<213> Homo sapiens

<400> 6291

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 <211> 497
 <212> PRT
 <213> Homo sapiens

<400> 6292
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 35 40 45
 Pro Arg Pro Ser Ser Leu Ser Asp Lys Thr Gln Leu His Ser Arg Trp
 50 55 60
 Leu Asp Ser Ser Arg Cys Leu Met Gln Gln Gly Ile Lys Ala Gly Asp
 65 70 75 80
 Ala Leu Trp Leu Arg Phe Lys Tyr Tyr Ser Phe Phe Asp Leu Asp Pro
 85 90 95
 Lys Thr Asp Pro Val Arg Leu Thr Gln Leu Tyr Glu Gln Ala Arg Trp
 100 105 110
 Asp Leu Leu Leu Glu Glu Ile Asp Cys Thr Glu Glu Glu Met Met Val
 115 120 125
 Phe Ala Ala Leu Gln Tyr His Ile Asn Lys Leu Ser Gln Ser Gly Glu
 130 135 140
 Val Gly Glu Pro Ala Gly Thr Asp Pro Gly Leu Asp Asp Leu Asp Val
 145 150 155 160
 Ala Leu Ser Asn Leu Glu Val Lys Leu Glu Gly Ser Ala Pro Thr Asp
 165 170 175
 Val Leu Asp Ser Leu Thr Thr Ile Pro Glu Leu Lys Asp Tyr Leu Arg
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 Ile Phe Arg Pro Arg Lys Leu Thr Leu Lys Gly Tyr Arg Gln His Trp
 195 200 205
 Val Val Phe Lys Glu Thr Thr Leu Ser Tyr Tyr Lys Ser Gln Asp Glu
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 Ala Pro Gly Asp Pro Ile Gln Gln Leu Asn Leu Lys Gly Cys Glu Val
 225 230 235 240
 Val Pro Asp Val Asn Val Ser Gly Gln Lys Phe Cys Ile Lys Leu Leu
 245 250 255
 Val Pro Ser Pro Glu Gly Met Ser Glu Ile Tyr Leu Arg Cys Gln Asp
 260 265 270
 Glu Gln Gln Tyr Ala Arg Trp Met Ala Gly Cys Arg Leu Ala Ser Lys
 275 280 285
 Gly Arg Thr Met Ala Asp Ser Ser Tyr Thr Ser Glu Val Gln Ala Ile
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 Leu Ala Phe Leu Ser Leu Gln His Gly Gln Trp Gly Pro Arg Gln Pro
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 Pro Pro Arg Pro Asp Ala Ser Ala Glu Gly Leu Asn Pro Tyr Gly Leu
 325 330 335
 Val Ala Pro Arg Phe Gln Arg Lys Phe Lys Ala Lys Gln Leu Thr Pro

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Arg Ile Leu Glu Ala His Gln Asn Val Ala Gln Leu Ser Leu Ala Glu
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Ala Gln Leu Arg Phe Ile Gln Ala Trp Gln Ser Leu Pro Asp Phe Gly
          370          375          380
Ile Ser Tyr Val Met Val Arg Phe Lys Gly Ser Arg Lys Asp Glu Ile
385          390          395          400
Leu Gly Ile Ala Asn Asn Arg Leu Ile Arg Ile Asp Leu Ala Val Gly
          405          410          415
Asp Val Val Lys Thr Trp Arg Phe Ser Asn Met Arg Gln Trp Asn Val
          420          425          430
Asn Trp Asp Ile Arg Gln Val Ala Ile Glu Phe Asp Glu His Ile Asn
          435          440          445
Val Ala Phe Ser Cys Val Ser Ala Ser Cys Arg Ile Val His Glu Tyr
          450          455          460
Ile Gly Gly Tyr Ile Phe Leu Ser Thr Arg Glu Arg Ala Arg Gly Glu
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Glu Leu Asp Glu Asp Leu Phe Leu Gln Leu Thr Gly Gly His Glu Ala
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Phe

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<210> 6293

<211> 750

<212> DNA

<213> Homo sapiens

<400> 6293

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<210> 6294
 <211> 250
 <212> PRT
 <213> Homo sapiens

<400> 6294

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      20           25           30
Gly Gly Thr Ala Ile Ala Gly Ser Val Glu Ala Val Ala Arg Leu Lys
      35           40           45
Arg Ser Arg Leu Lys Val Arg Phe Cys Thr Asn Glu Ser Gln Lys Ser
 50           55           60
Arg Ala Glu Leu Val Gly Gln Leu Gln Arg Leu Gly Phe Asp Ile Ser
 65           70           75           80
Glu Gln Glu Val Thr Ala Pro Ala Pro Ala Ala Cys Gln Ile Leu Lys
      85           90           95
Glu Arg Gly Leu Arg Pro Tyr Leu Leu Ile His Asp Gly Val Arg Ser
      100           105           110
Glu Phe Asp Gln Ile Asp Thr Ser Asn Pro Asn Cys Val Val Ile Ala
      115           120           125
Asp Ala Gly Glu Ser Phe Ser Tyr Gln Asn Met Asn Asn Ala Phe Gln
      130           135           140
Val Leu Met Glu Leu Glu Lys Pro Val Leu Ile Ser Leu Gly Lys Gly
      145           150           155           160
Arg Tyr Tyr Lys Glu Thr Ser Gly Leu Met Leu Asp Val Gly Pro Tyr
      165           170           175
Met Lys Ala Leu Glu Tyr Ala Cys Gly Ile Lys Ala Glu Val Val Gly
      180           185           190
Lys Pro Ser Pro Glu Phe Phe Lys Ser Ala Leu Gln Ala Ile Gly Val
      195           200           205
Glu Ala His Gln Ala Val Met Ile Gly Asp Asp Ile Val Gly Asp Val
      210           215           220
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 <211> 2091
 <212> DNA
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<400> 6295

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 240

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<210> 6296

<211> 399

<212> PRT

<213> Homo sapiens

<400> 6296

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			20					25					30		
Ala	Cys	Gly	Cys	Arg	Leu	Val	Leu	Gly	Gly	Arg	Asp	Asp	Val	Ser	Ala
			35					40					45		
Gly	Leu	Arg	Gly	Ser	His	Gly	Ala	Arg	Gly	Glu	Pro	Leu	Asp	Pro	Ala
			50					55					60		
Arg	Pro	Leu	Gln	Arg	Pro	Pro	Arg	Pro	Glu	Val	Pro	Arg	Ala	Phe	Arg
Arg	Gln	Pro	Arg	Ala	Ala	Ala	Pro	Ser	Phe	Phe	Phe	Ser	Ser	Ile	Lys
Gly	Gly	Arg	Arg	Ser	Ile	Ser	Phe	Ser	Val	Gly	Ala	Ser	Ser	Val	Val
Gly	Ser	Gly	Gly	Ser	Ser	Asp	Lys	Gly	Lys	Leu	Ser	Leu	Gln	Asp	Val
Ala	Glu	Leu	Ile	Arg	Ala	Arg	Ala	Cys	Gln	Arg	Val	Val	Val	Met	Val
Gly	Ala	Gly	Ile	Ser	Thr	Pro	Ser	Gly	Ile	Pro	Asp	Phe	Arg	Ser	Pro
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Glu	Ala	Ile	Phe	Glu	Leu	Pro	Phe	Phe	Phe	His	Asn	Pro	Lys	Pro	Phe
Phe	Thr	Leu	Ala	Lys	Glu	Leu	Tyr	Pro	Gly	Asn	Tyr	Lys	Pro	Asn	Val
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225															
Ala	Ser	Lys	Leu	Val	Glu	Ala	His	Gly	Thr	Phe	Ala	Ser	Ala	Thr	Cys
245															
Thr	Val	Cys	Gln	Arg	Pro	Phe	Pro	Gly	Glu	Asp	Ile	Arg	Ala	Asp	Val
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275															
Pro	Asp	Ile	Val	Phe	Phe	Gly	Glu	Pro	Leu	Pro	Gln	Arg	Phe	Leu	Leu
290															
His	Val	Val	Asp	Phe	Pro	Met	Ala	Asp	Leu	Leu	Leu	Ile	Leu	Gly	Thr

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305              310              315              320
Ser Leu Glu Val Glu Pro Phe Ala Ser Leu Thr Glu Ala Val Arg Ser
              325              330              335
Ser Val Pro Arg Leu Leu Ile Asn Arg Asp Leu Val Gly Pro Leu Ala
              340              345              350
Trp His Pro Arg Ser Arg Asp Val Ala Gln Leu Gly Asp Val Val His
              355              360              365
Gly Val Glu Ser Leu Val Glu Leu Leu Gly Trp Thr Glu Glu Met Arg
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<210> 6297

<211> 472

<212> DNA

<213> Homo sapiens

<400> 6297

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<210> 6298

<211> 146

<212> PRT

<213> Homo sapiens

<400> 6298

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              20              25              30
Pro Phe Gly Leu Glu Glu Pro Gln Trp Val Pro Asp Lys Glu Cys Arg
              35              40              45
Arg Cys Met Gln Cys Asp Ala Lys Phe Asp Phe Leu Thr Arg Lys His
              50              55              60
His Cys Arg Arg Cys Gly Lys Cys Phe Cys Asp Arg Cys Cys Ser Gln
              65              70              75              80
Lys Val Pro Leu Arg Arg Met Cys Phe Val Asp Pro Val Arg Gln Cys
              85              90              95
Ala Glu Cys Ala Leu Val Ser Leu Lys Glu Ala Glu Phe Tyr Asp Lys

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	100		105		110										
Gln	Leu	Lys	Val	Leu	Leu	Ser	Gly	Lys	Asp	Gly	Cys	Pro	Ala	Gln	Ser
	115		120		125										
Cys	Ala	Leu	Arg	Gln	Pro	Ala	Pro	Arg	Val	Cys	Gly	Asp	Ala	Val	Gly
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Cys	Ala														
145															

<210> 6299

<211> 1466

<212> DNA

<213> Homo sapiens

<400> 6299

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 ggcgccagc cgcgccattg gccaggag agcctgggtc tgtaccactg gaccagtcc
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 ttcatctcgc agaaggtgcg gctgggtgat gccgagaagg gcctgggtgtg cgaggagcgg
 240
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<210> 6300

<211> 372

<212> PRT

<213> Homo sapiens

<400> 6300

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			20					25					30		
Ser	Gly	Gly	Pro	Arg	Arg	Ser	Arg	Gly	Gly	Gln	Pro	Ala	His	Trp	Pro
		35					40					45			
Arg	Glu	Ser	Leu	Val	Leu	Tyr	His	Trp	Thr	Gln	Ser	Phe	Ser	Ser	Gln
	50					55				60					
Lys	Val	Arg	Leu	Val	Ile	Ala	Glu	Lys	Gly	Leu	Val	Cys	Glu	Glu	Arg
65					70				75					80	
Asp	Val	Ser	Leu	Pro	Gln	Ser	Glu	His	Lys	Glu	Pro	Trp	Phe	Met	Arg
			85						90					95	
Leu	Asn	Leu	Gly	Glu	Glu	Val	Pro	Val	Ile	Ile	His	Arg	Asp	Asn	Ile
			100					105					110		
Ile	Ser	Asp	Tyr	Asp	Gln	Ile	Ile	Asp	Tyr	Val	Glu	Arg	Thr	Phe	Thr
		115					120					125			
Gly	Glu	His	Val	Val	Ala	Leu	Met	Pro	Glu	Val	Gly	Ser	Leu	Gln	His
		130				135					140				
Ala	Arg	Val	Leu	Gln	Tyr	Arg	Glu	Leu	Leu	Asp	Ala	Leu	Pro	Met	Asp
145					150					155				160	
Ala	Tyr	Thr	His	Gly	Cys	Ile	Leu	His	Pro	Glu	Leu	Thr	Thr	Asp	Ser
			165						170					175	
Met	Ile	Pro	Lys	Tyr	Ala	Thr	Ala	Glu	Ile	Arg	Arg	His	Leu	Ala	Asn
		180						185					190		
Ala	Thr	Thr	Asp	Leu	Met	Lys	Leu	Asp	His	Glu	Glu	Glu	Pro	Gln	Leu
		195					200					205			
Ser	Glu	Pro	Tyr	Leu	Ser	Lys	Gln	Lys	Lys	Leu	Met	Ala	Lys	Ile	Leu
	210					215					220				
Glu	His	Asp	Asp	Val	Ser	Tyr	Leu	Lys	Lys	Ile	Leu	Gly	Glu	Leu	Ala
225					230					235				240	
Met	Val	Leu	Asp	Gln	Ile	Glu	Ala	Glu	Leu	Glu	Lys	Arg	Lys	Leu	Glu
			245					250						255	
Asn	Glu	Gly	Gln	Lys	Cys	Glu	Leu	Trp	Leu	Cys	Gly	Cys	Ala	Phe	Thr
		260						265					270		
Leu	Ala	Asp	Val	Leu	Leu	Gly	Ala	Thr	Leu	His	Arg	Leu	Lys	Phe	Leu
		275					280					285			
Gly	Leu	Ser	Lys	Lys	Tyr	Trp	Glu	Asp	Gly	Ser	Arg	Pro	Asn	Leu	Gln

290		295		300
Ser Phe Phe Glu Arg Val Gln Arg Arg Phe Ala Phe Arg Lys Val Leu				
305		310		315
Gly Asp Ile His Thr Thr Leu Leu Ser Ala Val Ile Pro Asn Ala Phe				
		325		330
Arg Leu Val Lys Arg Lys Pro Pro Ser Phe Phe Gly Ala Ser Phe Leu				
		340		345
Met Gly Ser Leu Gly Gly Met Gly Tyr Phe Ala Tyr Trp Tyr Leu Lys				
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Lys Lys Tyr Ile				
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<210> 6301

<211> 911

<212> DNA

<213> Homo sapiens

<400> 6301

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<210> 6302

<211> 202

<212> PRT

<213> Homo sapiens

<400> 6302

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Glu Ser Leu Lys Lys Lys Ile Gln Pro Lys Leu Ser Leu Thr Leu Ser
 35           40           45
Ser Ser Val Ser Arg Gly Asn Val Ser Thr Pro Pro Arg His Ser Ser
 50           55           60
Gly Ser Leu Thr Pro Pro Val Thr Pro Pro Ile Thr Pro Ser Ser Ser
 65           70           75           80
Phe Arg Ser Ser Thr Pro Thr Gly Ser Glu Tyr Asp Glu Glu Glu Val
 85           90           95
Asp Tyr Glu Glu Ser Asp Ser Asp Glu Ser Trp Thr Thr Glu Ser Ala
 100          105          110
Ile Ser Ser Glu Ala Ile Leu Ser Ser Met Cys Met Asn Gly Gly Glu
 115          120          125
Glu Lys Pro Phe Ala Cys Pro Val Pro Gly Cys Lys Lys Arg Tyr Lys
 130          135          140
Asn Val Asn Gly Ile Lys Tyr His Ala Lys Asn Gly His Arg Thr Gln
 145          150          155          160
Ile Arg Val Arg Lys Pro Phe Lys Cys Arg Cys Gly Lys Ser Tyr Lys
 165          170          175
Thr Ala Gln Gly Leu Arg His His Thr Ile Asn Phe His Pro Pro Val
 180          185          190
Ser Ala Glu Ile Ile Arg Lys Met Gln Gln
 195          200

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<210> 6303

<211> 676

<212> DNA

<213> Homo sapiens

<400> 6303

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360
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420
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480
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540

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<210> 6304
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 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Asp Ser His Leu Trp Lys Leu Leu Asp Arg His Ala Asn Thr Ile Arg
 50 55 60
 Leu Phe Val Leu Leu Pro Glu Gln Ser Pro Val Ser Tyr Ser Lys Arg
 65 70 75 80
 Thr Ala Tyr Gln Lys Ala Gly Gly Asp Ser Gly Asn Val Asp Asp Asp
 85 90 95
 Cys Glu Arg Val Lys Gly Pro Val Gly Ser Leu Lys Ser Val Glu Ala
 100 105 110
 Ile Leu Glu Glu Ser Thr Glu Lys Leu Lys Ser Leu Ser Leu Gln Gln
 115 120 125
 Gln Gln Asp Gly Asp Asn Gly Asp Ser Ser Lys Ser Thr Glu Thr Ser
 130 135 140
 Asp Phe Glu Asn Ile Glu Ser Pro Leu Asn Glu Arg Asp Ser Ser Ala
 145 150 155 160
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<210> 6305
 <211> 3853
 <212> DNA
 <213> Homo sapiens

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<210> 6306
 <211> 474
 <212> PRT
 <213> Homo sapiens

<400> 6306
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 65 70 75 80
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 Asn Gly Leu Thr Ser Pro Leu Thr Glu Pro Val Val Val Leu Glu Gly
 115 120 125
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 Cys Lys Asp Lys Ser Val Arg Ile Ile Asp Pro Arg Arg Gly Thr Leu
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 Ser Glu Arg Gln Leu Ala Leu Trp Asn Pro Lys Asn Met Gln Glu Pro
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Pro Lys Arg Gly Leu Asp Val Asn Lys Cys Glu Ile Ala Arg Phe Phe
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Lys Leu His Glu Arg Lys Cys Glu Pro Ile Ile Met Thr Val Pro Arg
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Lys Ser Asp Leu Phe Gln Asp Asp Leu Tyr Pro Asp Thr Ala Gly Pro
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Glu Ala Ala Leu Glu Ala Glu Glu Trp Phe Glu Gly Lys Asn Ala Asp
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Pro Ile Leu Ile Ser Leu Lys His Gly Tyr Ile Pro Gly Lys Asn Arg
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      420              425              430
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<210> 6307

<211> 2119

<212> DNA

<213> Homo sapiens

<400> 6307

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<210> 6308

<211> 483

<212> PRT

<213> Homo sapiens

<400> 6308

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Phe Ile Gln Arg Phe Glu Met Lys Arg Ser Pro Glu Glu Lys Gln Glu
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Val Asp Asp Met Leu Gln Glu Asn His Gln Arg Val Ser Ile Phe Phe
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Asp Tyr Ala Arg Cys Ser Lys Asn Thr Ala Trp Pro Tyr Phe Leu Pro
      115          120          125
Met Leu Asn Arg Gln Asp Pro Phe Thr Val His Met Ala Ala Arg Ile
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Asp Ser Ser Gln Tyr Val Gln Cys Val Ala Gly Cys Leu Gln Leu Met
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Phe Leu Leu Glu Lys Leu Gly Glu Ser Val Gln Asp Leu Ser Ser Phe
      340          345          350
Asp Glu Tyr Ser Ser Glu Leu Lys Ser Gly Arg Leu Glu Trp Ser Pro
      355          360          365
Val His Lys Ser Glu Lys Phe Trp Arg Glu Asn Ala Val Arg Leu Asn
      370          375          380
Glu Lys Asn Tyr Glu Leu Leu Lys Ile Leu Thr Lys Leu Leu Glu Val
      385          390          395          400
Ser Asp Asp Pro Gln Val Leu Ala Val Ala Ala His Asp Val Gly Glu

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 Gly Lys Gln Leu Val Met Asn His Met His His Glu Asp Gln Gln Val
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 Arg Tyr Asn Ala Leu Leu Ala Val Gln Lys Leu Met Val His Asn Trp
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<210> 6309
 <211> 564
 <212> DNA
 <213> Homo sapiens

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<210> 6310
 <211> 83
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Leu Arg Leu Pro Glu Pro Gln Leu Leu Pro Glu Arg Arg Val Leu Ala
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<210> 6311
<211> 1548
<212> DNA
<213> Homo sapiens

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 Leu Asp Glu Tyr Lys Glu Gln Tyr Phe Ser Leu Arg Pro Asp Leu Lys
 35 40 45
 Thr Lys Ser Tyr Gly Asn Ile Ser Glu Arg Val Glu Leu Arg Lys Lys
 50 55 60
 Leu Gly Cys Lys Ser Phe Lys Trp Tyr Leu Asp Asn Val Tyr Pro Glu
 65 70 75 80
 Met Gln Ile Ser Gly Ser His Ala Lys Pro Gln Gln Pro Ile Phe Val
 85 90 95
 Asn Arg Gly Pro Lys Arg Pro Lys Val Leu Gln Arg Gly Arg Leu Tyr
 100 105 110
 His Leu Gln Thr Asn Lys Cys Leu Val Ala Gln Gly Arg Pro Ser Gln
 115 120 125
 Lys Gly Gly Leu Val Val Leu Lys Ala Cys Asp Tyr Ser Asp Pro Asn
 130 135 140
 Gln Ile Trp Ile Tyr Asn Glu Glu His Glu Leu Val Leu Asn Ser Leu
 145 150 155 160
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 180 185 190
 Asn Asn Arg Leu Tyr Gln Val Ser Val Gly Gln Cys Leu Arg Ala Val
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<210> 6314
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 <212> PRT
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 35 40 45
 Glu Val Lys Gly Glu Ile Ala Arg Lys Asp Glu Lys Leu Leu Ser Phe
 50 55 60
 Leu Lys Asp Val Tyr Val Asp Ser Lys Asp Pro Val Ser Ser Leu Gln
 65 70 75 80
 Val Lys Ala Ala Glu Thr Cys Gln Glu Pro Lys Glu Phe Arg Leu Pro
 85 90 95
 Lys Asp His His Phe Asp Met Ile Asn Ile Lys Ser Ile Pro Lys Gly
 100 105 110
 Lys Ile Ser Ile Val Glu Ala Leu Thr Leu Leu Asn Asn His Lys Leu
 115 120 125
 Phe Pro Glu Thr Trp Thr Ala Glu Lys Ile Met Gln Glu Tyr Gln Leu
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<210> 6315
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<210> 6316
 <211> 126
 <212> PRT
 <213> Homo sapiens

<400> 6316
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 35 40 45
 Asp Glu Ala Asp Glu Lys Gly Trp Phe Pro Leu His Glu Ala Val Val
 50 55 60
 Gln Pro Ile Gln Gln Ile Leu Glu Ile Val Leu Asp Ala Ser Tyr Lys
 65 70 75 80
 Thr Leu Trp Glu Phe Lys Thr Cys Asp Gly Glu Thr Pro Leu Thr Leu
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<210> 6317
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 <212> DNA
 <213> Homo sapiens

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<211> 196

<212> PRT

<213> Homo sapiens

<400> 6322

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          50           55           60
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Asp Ser Asp Ser
          195

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What is claimed is:

1. An isolated nucleic acid molecule encoding a polypeptide comprising an amino acid sequence that is at least 85% identical to a polypeptide including an amino acid sequence selected from the group consisting of SEQ ID NO:2 n , wherein n is any integer 1-3161, or the complement thereof.

2. The isolated nucleic acid molecule of claim 1, said molecule hybridizing under stringent conditions to a nucleic acid sequence complementary to a nucleic acid molecule comprising the sequence of nucleotides selected from the group consisting of SEQ ID NO:2 n , wherein n is any integer 1-3161, or the complement thereof.

3. The isolated nucleic acid molecule of claim 1, said molecule encoding a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ ID NO: 2 n , wherein n is any integer 1-3161, or an amino acid sequence comprising one or more conservative substitutions in the amino acid sequence selected from the group consisting of SEQ ID NO: 2 n .

4. The isolated nucleic acid molecule of claim 1, wherein said molecule encodes a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ ID NO: 2 n , wherein n is any integer 1-3161.

5. The isolated nucleic acid molecule of claim 1, wherein said molecule comprises the sequence of nucleotides selected from the group consisting of SEQ ID NO:2 n -1, wherein n is any integer 1-3161, or the complement thereof.

6. An oligonucleotide less than 100 nucleotides in length and comprising at least contiguous nucleotides selected from the group consisting of SEQ ID NO:2 n -1, wherein n is any integer 1-3161, or the complement thereof.

7. A vector comprising the nucleic acid molecule of claim 1.

8. The vector of claim 7, wherein said vector is an expression vector.
9. A host cell comprising the isolated nucleic acid molecule of claim 1.
10. A substantially purified polypeptide comprising an amino acid sequence at least 80% identical to a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ ID NO: 2*n*, wherein *n* is any integer 1-3161.
11. The polypeptide of claim 10, wherein said polypeptide comprises the amino acid sequence selected from the group consisting of SEQ ID NO: 2*n*, wherein *n* is any integer 1-3161.
12. An antibody that selectively binds to the polypeptide of claim 10.
13. A pharmaceutical composition comprising a therapeutically or prophylactically effective amount of a therapeutic selected from the group consisting of:
 - a) the nucleic acid of claim 1;
 - b) the polypeptide of claim 10; and
 - c) the antibody of claim 12;and a pharmaceutically acceptable carrier.
14. A kit comprising in one or more containers, a therapeutically or prophylactically effective amount of the pharmaceutical composition of claim 13.
15. A method of producing the polypeptide of claim 10, said method comprising culturing the host cell of claim 9 under conditions in which the nucleic acid molecule is expressed.
16. A method of detecting the presence of the polypeptide of claim 10 in a sample, comprising contacting the sample with a compound that selectively binds to said polypeptide under conditions allowing the formation of a complex between said polypeptide and said

compound, and detecting said complex, if present, thereby identifying said polypeptide in said sample.

17. A method of detecting the presence of a nucleic acid molecule of claim 1 in a sample, the method comprising contacting the sample with a nucleic acid probe or primer that selectively binds to the nucleic acid molecule and determining whether the nucleic acid probe or primer bound to the nucleic acid molecule of claim 1 is present in the sample.

18. A method for modulating the activity of the polypeptide of claim 10, the method comprising contacting a cell sample comprising the polypeptide of claim 10 with a compound that binds to said polypeptide in an amount sufficient to modulate the activity of the polypeptide.

19. The use of a therapeutic in the manufacture of a medicament for treating a syndrome associated with a ORFX-associated disorder, wherein said therapeutic is selected from the group consisting of:

- a) the nucleic acid of claim 1;
- b) the polypeptide of claim 10; and
- c) the antibody of claim 12.

20. A method for screening for a modulator of activity or of latency or predisposition to an ORFX-associated disorder, said method comprising:

- a) contacting a test compound with the polypeptide of claim 10; and
- b) determining if said test compound binds to said polypeptide,

wherein binding of said test compound to said polypeptide indicates the test compound is a modulator of activity or of latency or predisposition to an ORFX-associated disorder.

21. A method for screening for a modulator of activity or of latency or predisposition to an ORFX-associated disorder, said method comprising:

- a) administering a test compound to a test subject at an increased risk ORFX-associated disorder, wherein said test subject recombinantly expresses a polypeptide encoded by the nucleotide of claim 1;

- b) measuring expression the activity of said protein in said test subject;
- c) measuring the activity of said protein in a control subject that recombinantly expresses said protein and is not at increased risk for an ORFX-associated disorder; and
- d) comparing expression of said protein in said test subject and said control subject, wherein a change in the activity of said protein in said test subject relative to said control subject indicates the test compound is a modulator or of latency of predisposition to an ORFX-associated disorder.

22. The method of claim 20, wherein said test animal is a recombinant test animal that expresses a test protein transgene or expresses said transgene under the control of a promoter at an increased level relative to a wild-type test animal, and wherein said promoter is not the native gene promoter of said transgene.

23. A method for determining the presence of or predisposition to a disease associated with altered levels of a polypeptide of claim 11 in a subject, the method comprising:

- a) measuring the amount of the polypeptide in a sample from said subject; and
- b) comparing the amount of said polypeptide in step (a) to the amount of the polypeptide present in a control sample,

wherein an alteration in the level of the polypeptide in step (a) as compared to the control sample indicates the presence of or predisposition to a disease in said subject.

24. The method of claim 23, wherein said subject is a human.

25. A method for determining the presence of or predisposition to a disease associated with altered levels the nucleic acid molecule of claim 1 in a subject, the method comprising:

- a) measuring the amount of the nucleic acid in a sample from the mammalian subject; and
- b) comparing the amount of said nucleic acid in step (a) to the amount of the nucleic acid present in a control sample,

wherein an alteration in the level of the nucleic acid in step (a) as compared to the control sample indicates the presence of or predisposition to said disease in said subject.

26. The method of claim 25, wherein said subject is a human.

27. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject polypeptide of claim 10 in an amount sufficient to alleviate or prevent said pathological condition.

28. The method of claim 27, wherein said subject is a human.

29. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject nucleic acid molecule of claim 1 in an amount sufficient to alleviate or prevent said pathological condition.

30. The method of claim 29, wherein said subject is a human.

31. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject antibody of claim 12 in an amount sufficient to alleviate or prevent said pathological condition.

32. The method of claim 31, wherein said subject is a human.

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IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
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(CIP) to earlier applications:

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(75) Inventors/Applicants (*for US only*): SHIMKETS,

*For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*

(54) Title: NUCLEIC ACIDS INCLUDING OPEN READING FRAMES ENCODING POLYPEPTIDES; "ORFX"

(57) Abstract: The present invention provides open reading frames encoding isolated polypeptides, as well as polynucleotides encoding ORFX and antibodies that immunospecifically bind to ORFX or any derivative, variant, mutant, or fragment of the ORFX polypeptides, polynucleotides or antibodies. The invention additionally provides methods in which the ORFX polypeptide, polynucleotide and antibody are used in detection and treatment of a broad range of pathological states, as well as to other uses.

WO 00/58473 A3

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 00/08621

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/12 C07K14/47 C07K16/18 G01N33/566 C12Q1/68
C12N15/11 C12N15/62 A01K67/027 A61K38/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N C07K G01N A01K A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

BIOSIS, EMBASE, MEDLINE, CAB Data, PAJ, EPO-Internal, WPI Data, STRAND

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	COLE S.T.: "Deciphering the biology of Mycobacterium tuberculosis from the complete genome sequence." NATURE, vol. 393, 11 June 1998 (1998-06-11), XP002144873 sequence	

A	LAMERDIN J.E.: "Sequence analysis of a 3.5 Mb contig in human 19p13.3 containing a serine protease gene cluster." EMEST DATABASE ENTRY, 8 February 1999 (1999-02-08), XP002144874 sequence	

	-/--	

☒ Further documents are listed in the continuation of box C.

☐ Patent family members are listed in annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

21 August 2000

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Fax: (+31-70) 340-3016

Authorized officer

Hix, R

INTERNATIONAL SEARCH REPORT

Internat' Application No

PCT/US 00/08621

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	M.D. ADAMS ET AL.: "The genome sequence of <i>Drosophila melanogaster</i> ." SCIENCE, vol. 287, 24 March 2000 (2000-03-24), pages 2185-2195, XP002144875 the whole document -----	6

Form PCT/ISA/210 (continuation of second sheet) (July 1992)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 00/08621

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

Although claims 27 to 32 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

claims 1 to 32 partially

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claim : 1 to 32 partially

Isolated nucleic acid molecule encoding a polypeptide comprising an amino acid sequence that is at least 85% identical to a polypeptide including an amino acid sequence selected from a group consisting of SEQ ID NO 2n wherein n is 1, oligonucleotides less than 100 nucleotides in length and comprising at least 6 contiguous nucleotides from the above sequence, polypeptides encoded by said nucleotides, antibodies that bind to said polypeptide, pharmaceutical composition comprising said polypeptide and methods of detection, screening, therapeutic uses involving said polypeptide.

2. Claim : .

Inventions 2 to 3161

claims 1 to 32 partially :

Isolated nucleic acid molecule encoding a polypeptide comprising an amino acid sequence that is at least 85% identical to a polypeptide including an amino acid sequence selected from a group consisting of SEQ ID NO 2n wherein n is 2 to 3161, oligonucleotides less than 100 nucleotides in length and comprising at least 6 contiguous nucleotides from the above sequence, polypeptides encoded by said nucleotides, antibodies that bind to said polypeptide, pharmaceutical composition comprising said polypeptide and methods of detection, screening, therapeutic uses involving said polypeptide.

